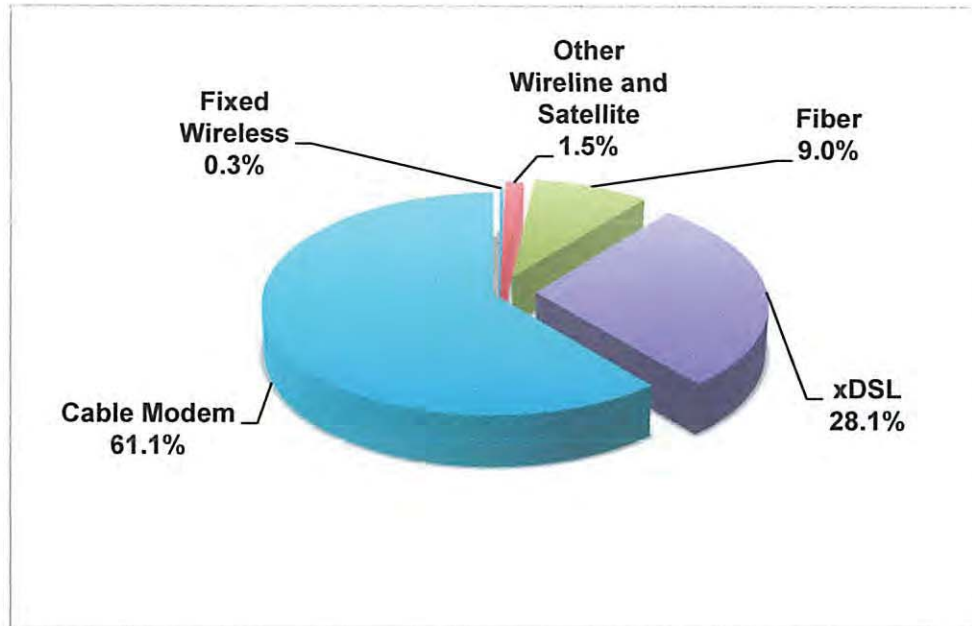


Figure 5
California Consumers Rely on Cable Modem Service More Than Any Other
Fixed Broadband Service to Access the Internet
(3 Mbps Download and above)¹⁰⁹



Q: Does the FCC's report contain information about the speeds of the Internet access service to which consumers subscribe?

A: Yes. The report provides the percentage of total residential and business connections by download speed on a state-specific basis (the information is not available separately for residential connections). In California, as of December 31, 2013, approximately 38% of connections were at least 10 Mbps downstream; 49% were at least 6 Mbps downstream;

¹⁰⁹ Source: FCC Internet Access Services Report, at Table 17. Percentages may not add to 100% due to rounding.

1 and 77% were at least 3 Mbps downstream (meaning that roughly 23% of broadband
2 subscribers have speeds that are less than the National Broadband Availability Target).¹¹⁰

3 **Q: Table 9 and Figure 5, above, then correspond with the approximate three-quarters**
4 **of subscribers that purchase broadband Internet access with download speeds of at**
5 **least 3 Mbps. Is that right, and have you examined cable companies' market shares**
6 **using a higher-speed threshold?**

7 A: Yes. My market analysis corresponds with those wireline broadband connections with
8 downstream speeds that meet or exceed 3 Mbps. It is highly probable that as the
9 threshold speed for the market being examined increases, California's cable companies'
10 market share would increase. Although the FCC does not report this data on a state-
11 specific basis, as Figure 6, below, shows, nationally, as the speed of broadband Internet
12 access increases, the share served by ILECs' digital subscriber lines ("DSL") declines
13 and the share served by cable companies increases (fiber's share, which I assume to be
14 provided by ILECs, increases also, but it is significantly smaller than cable companies'
15 share).¹¹¹ I assume the pattern in California parallels that of the national pattern.

16
17 ILECs do not offer their fiber-based services everywhere, and where they do not, the
18 cable companies are typically the sole supplier of broadband Internet access at the faster
19 speeds that customers are increasingly seeking.

¹¹⁰ FCC Internet Access Services Report, at Table 18.

¹¹¹ Id., at Table 11 and Chart 12.

1 **Q: What is the basis of your statement that ILECs' fiber-based offerings are not**
2 **available to all consumers and that their DSL offerings are at lower speeds than the**
3 **options that cable companies offer?**

4 A: It is widely recognized that AT&T does not offer U-verse in all communities. For
5 example, AT&T's web site requires a customer to enter her address into the company's
6 website in order to determine if she can order U-verse. The web site also states:

7 What if U-verse® Isn't Available in my Area?

8
9 AT&T is in the process of expanding the U-verse network. Unfortunately,
10 U-verse isn't available in all AT&T areas. Although U-verse may not be
11 available yet, AT&T still has a large DSL network with phone and high-
12 speed Internet available. AT&T's DSL network has speeds up to 6.0 Mbps
13 and is perfect for surfing, gaming, streaming video, and more. Call us
14 today to see what services AT&T has in your area.¹¹²
15

16 FiOS is not ubiquitously offered.¹¹³ More than four years ago, Verizon announced its
17 plans to stop rolling out FiOS.¹¹⁴ AT&T's fiber roll-out plans are uncertain, and may be
18 affected by the company's concern about pending federal net neutrality policies. One
19 article reported: "AT&T had planned to invest in bringing its GigaPower 1-gigabit
20 broadband service -- a competitor to Google's superfast Google Fiber service -- into 100
21 cities next year. 'We can't go out and invest that kind of network without knowing the

¹¹² <http://www.attavings.com/availability>, site visited November 25, 2014.

¹¹³ See <http://fios.verizon.com/fios-coverage.html>. The website states: "The Verizon coverage area for the FiOS Network is already established in 20 cities throughout the United States. If you live near one of the following cities, call 1-877-671-0994 to see if your residence is within the Verizon coverage map." Site visited December 3, 2014. Los Angeles, CA is the California city with FiOS availability. Id.

¹¹⁴ "Verizon to End Rollout of FiOS," Roger Cheng, *Wall Street Journal*, March 30, 2010. <http://online.wsj.com/articles/SB10001424052702303410404575151773432729614>

1 rules governing the network,' Stephenson said.”¹¹⁵

2 **Q: But didn't AT&T subsequently clarify and re-confirm its commitment to roll out**
3 **broadband service?**

4 A: Yes. AT&T provided highly confidential information to the FCC in a letter submitted on
5 November 25, 2014, with detailed information, disaggregated by DMA (designated
6 market area), regarding the quantities of (1) customer locations with fiber to the premise
7 (“FTTP”); (2) customer locations with fiber to the node (“FTTN”); and (3) FTTN
8 deployment planned.¹¹⁶

9 **Q: What is the relevance of ILECs' broadband Internet access to this proceeding?**

10 A: Comcast is uniquely positioned to meet consumers' demand for increasingly fast
11 broadband Internet access on a far more ubiquitous basis than are the ILECs. As I
12 discuss above, consumers may have only one wireline option to meet their broadband

¹¹⁵ “AT&T chief says Net neutrality qualms could crimp fiber plans,” C/Net, November 12, 2014.
<http://www.cnet.com/news/at-t-ceo-net-neutrality-uncertainty-puts-a-pause-in-investing/> See also,
“AT&T's Randall Stephenson Says Obama's Plans For Net Neutrality Will Stop Investment,” November
14, 2014, Forbes (with video of interview with Mr. Stephenson),
<http://www.forbes.com/sites/ey/2014/11/14/atts-randall-stephenson-says-obamas-plans-for-net-neutrality-will-stop-investment-video/>

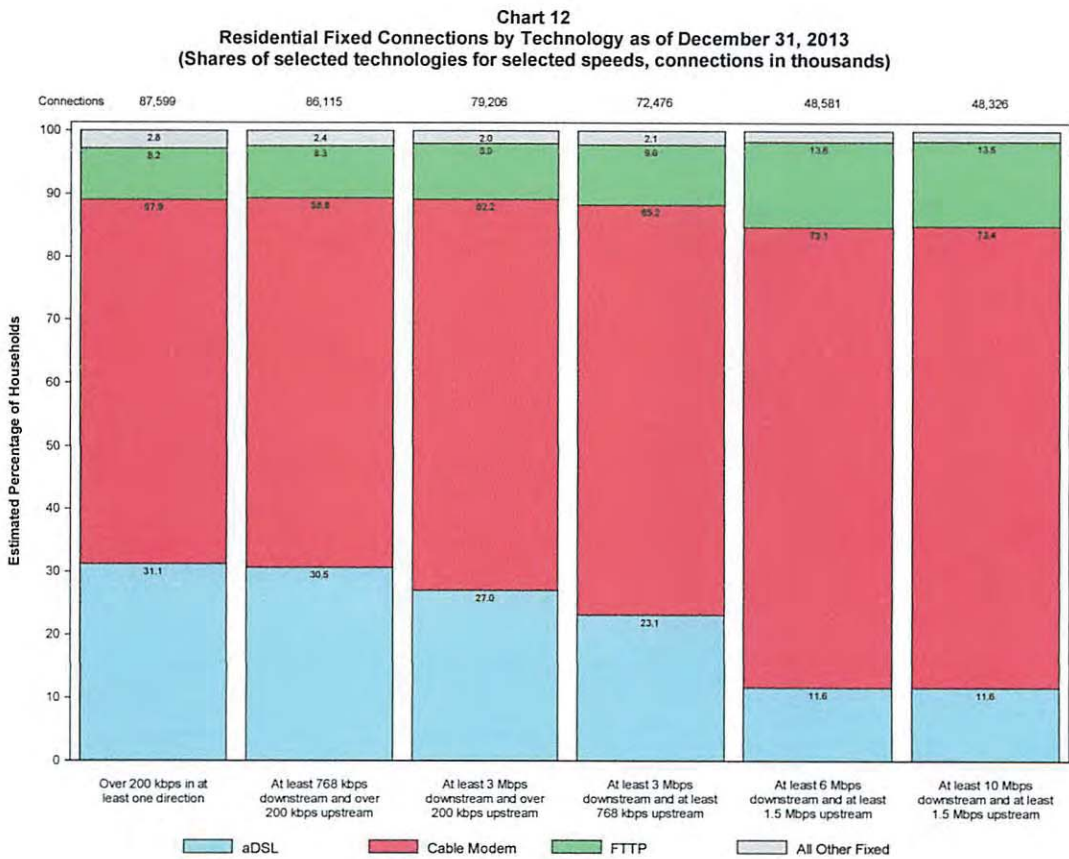
¹¹⁶ See Applications of AT&T Inc. and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations, MB Docket No. 14-90, letter from Robert W. Quinn, Jr., Sr. VP-Federal Regulatory and Chief Privacy Officer to Marlene H. Dortch, Esq., Secretary, FCC dated November 25, 2014. I have included this letter, in which AT&T has redacted information it contends is highly confidential, as Exhibit SMB-23. AT&T's letter to the FCC provides public aggregate national data regarding AT&T's deployment plans. The detailed information has been redacted, however, and therefore I cannot determine how many California households are encompassed by AT&T's plans. I recommend that the Commission sign the necessary non-disclosure agreements in order to obtain this information, or, in the alternative, request that AT&T provide the Commission, ORA, and TURN with the redacted data to assist the Commission, in combination with information that it should obtain from the Joint Applicants, in (1) pinpointing broadband deployment gaps; (2) fulfilling its Section 706 authority; and (3) monitoring the level of competition that exists in the broadband Internet access market.

1 needs, and at best have two options. The merger would further concentrate Comcast's
2 control of the nation's and the state's broadband Internet access markets, which is not in
3 the public interest.

4
5 Consumers' increasing appetite for bandwidth-intensive applications (e.g., streaming
6 House of Cards from Netflix, uploading home videos, Skyping among relatives, etc.) will
7 force them to rely on cable companies for broadband Internet access and to a lesser extent
8 to ILEC's far less ubiquitous U-verse and FiOS services.

Figure 6

Residential Fixed Connections by Technology, as of December 31, 2013
Shares of Selected Technologies for Selected Speeds, National Data
(connections in thousands)
(reproduced from the FCC Internet Access Report)



Q: Doesn't Figure 6, above, demonstrate that the ILECs' fiber-based broadband offerings present some competitive pressure for Comcast?

A: Not really. At best there is a duopoly. Furthermore, Figure 6 provides a national view. From an individual consumer's perspective, of course, the relevant geographic market is

1 much smaller. The quantity of suppliers is location-specific. For example, in those areas
2 where ILECs do not offer fiber-based services, and where customers want high-speed
3 wireline broadband Internet access, they have one choice – the cable company (assuming
4 that the cable company serves the customer’s neighborhood). The broadband market is
5 not now competitive. The proposed merger will not enhance broadband competition and
6 there is no evidence that post-merger Comcast would deploy broadband Internet access to
7 unserved and underserved areas. The merger would not lead to any broadband-related
8 benefits for households, and instead would eliminate a potential competitor and a
9 benchmark in the broadband Internet access market.

10 **Q: Is there other support for your view that a duopoly controls the broadband wireline**
11 **market, particularly as the speed of the broadband Internet access increases?**

12 A: Yes. On September 4, 2014, FCC Chairman Wheeler gave a speech at the “1776”
13 Headquarters in Washington DC regarding broadband.¹¹⁷ Chairman Wheeler stated that
14 high-speed wired broadband competition is not the reality for most Americans and “[t]he
15 underpinning of broadband policy today is that competition is the most effective tool for
16 driving innovation, investment, and consumer and economic benefits. Unfortunately, the
17 reality we face today is that as bandwidth increases, competitive choice decreases.”
18 Chairman Wheeler provided a chart indicating that just 14.6% of homes have more than
19 two providers of wired broadband at the 3 Mbps upstream/768 kbps downstream speed.

¹¹⁷ Text of the speech is available at: <http://www.fcc.gov/document/chairman-remarks-facts-and-future-broadband-competition>. “1776” is a startup incubator.

1 As speeds increase, that percentage falls. As noted by the Chairman in the same speech,
2 the FCC has proposed updating its current broadband definition of 4 Mbps downstream
3 to 10 Mbps (while also acknowledging that 10 Mbps may still be too low for many
4 households). Mr. Wheeler further stated: “Today, cable companies provide the
5 overwhelming percentage of high-speed broadband connections in America. Industry
6 observers believe cable’s advantage over DSL technologies will continue for the
7 foreseeable future.” Chairman Wheeler used the term “duopoly” to describe the current
8 market and went further by stating:

9 But even two ‘competitors’ overstates the case. Counting the number of
10 choices the consumer has on the day before their Internet service is
11 installed does not measure their competitive alternatives the day after.
12 Once consumers choose a broadband provider, they face high switching
13 costs that include early-termination fees, and equipment rental fees. And,
14 if those disincentives to competition weren’t enough, the media is full of
15 stories of consumers’ struggles to get ISPs to allow them to drop service.

16 Further corroborating consumer advocates’ long-term concern, Mr. Wheeler stated: “it
17 seems clear that mobile broadband is just not a full substitute for fixed broadband,
18 especially given mobile pricing levels and limited data allowances.” Fixed-location
19 technologies are those broadband technologies other than terrestrial mobile wireless (e.g.,
20 cable and DSL services). Broadband provided over mobile wireless is a communications
21 service “between mobile and fixed stations, or just mobile stations.”¹¹⁸

¹¹⁸ FCC Internet Access Services Report, at Glossary. See, also, en.wikipedia.org/wiki/Mobile-broadband: “Mobile broadband is the marketing term for wireless Internet access through a portable modem, mobile phone, USB wireless modem, tablet or other mobile devices.”

1 **Entry into the broadband Internet access market.**

2 **Q: Did the Applicants provide information to the FCC regarding the presence of other**
3 **providers of broadband Internet access?**

4 A: Yes. In response to the FCC's Information and Data Request, Comcast provided public
5 and highly confidential information about, among other things, the presence of other
6 Internet access providers. For example, in its supplemental filing to the FCC on October
7 23, 2014 (provided in redacted form to TURN and other intervenors on November 18,
8 2014 as the "redacted version of Comcast Corporation's Further Supplemental Responses
9 to ORA's Second Set of DRs"),¹¹⁹ Comcast provided a page entitled "Entries to & Exits
10 from Internet Access Service."¹²⁰ The information shows two firms entering and five
11 firms exiting the broadband Internet access market since January 2009.¹²¹ The two firms
12 entering are Google Fiber and Towerstream Corp. ("Towerstream"). Google Fiber has no
13 service areas in California at this time and Towerstream entered the Los Angeles and San
14 Francisco markets according to the document. However, Towerstream only provides
15 broadband services to business customers, according to its website.¹²²

¹¹⁹ I have not yet received the highly confidential versions of Comcast's original and supplemental response to the FCC's Information and Data Request, which was requested by ORA in its second set of data requests.

¹²⁰ Bates Comcast_ORA_0001829, which I include as part of Exhibit SMB-24.

¹²¹ The information is for Comcast's national operations.

¹²² See <http://www.towerstream.com/company> (accessed November 24, 2014).

1 In its responses to the FCC's Information and Data Request, Comcast states that Internet
2 access services are provided by a "variety" of providers including cable companies,
3 telephone companies, satellite companies and mobile wireless providers.¹²³ Comcast
4 states that mobile wireless and satellite providers generally offer service nationwide and
5 that the cable and telephone company-provided Internet service "varies depending on
6 geographic reach of the cable and telephone company systems that provide these
7 services."¹²⁴ As part of the evidence it provides to show that consumers have substitutes
8 and that new entry is possible, Comcast relied on the FCC's Form 477 data showing that
9 54% of households nationwide have at least three fixed broadband providers to choose
10 from as of June 2013.¹²⁵

11 **Q: Comcast highlights the deployment of long term evolution ("LTE") networks by**
12 **mobile broadband providers and characterizes mobile broadband as a direct**
13 **competitor to Comcast's services. Do you agree?**

14 A: No. FCC Chairman Wheeler recently discussed the issue, stating: "it seems clear that
15 mobile broadband is just not a full substitute for fixed broadband, especially given mobile
16 pricing levels and limited data allowances."¹²⁶

17 **Q: Does Comcast provide any information to suggest that entry into the Internet access**

¹²³ Bates Comcast ORA 0001794, which I include as part of Exhibit SMB-24.

¹²⁴ Bates Comcast ORA 0001781, which I include as part of Exhibit SMB-24.

¹²⁵ Bates Comcast ORA 0001796, which I include as part of Exhibit SMB-24.

¹²⁶ On September 4, 2014, FCC Chairman Wheeler gave a speech at the "1776" Headquarters in Washington DC regarding broadband. Text of the speech is available at:
<http://www.fcc.gov/document/chairman-remarks-facts-and-future-broadband-competition>.

1 **market would be easy?**¹²⁷

2 A: No. Instead, Comcast states that the time required for entry into the Internet access
3 service market is:

4 . . . variable and cannot be predicted in the abstract. A new Internet
5 service provider would need to build or purchase a physical infrastructure;
6 enter into interconnection relationships with other ISPs, CDNs, and
7 content providers; and meet often substantial regulatory requirements, in
8 addition to marketing the product. The timing of each of these
9 requirements is variable depending on factors such as the scope of entry or
10 the manner of entry (e.g., building new infrastructure versus purchasing
11 existing systems). In particular, the amount of time required to build
12 physical infrastructure may vary widely depending on how much the new
13 entrant intends to spend on construction (since the time required for a
14 project is generally inversely proportional to the cost).¹²⁸
15

16 **Q: One category of providers identified by Comcast as “competing vigorously” includes**
17 **municipal providers. Please discuss municipalities’ broadband deployment as it**
18 **relates to California.**

¹²⁷ Section 9, page 27 of the Horizontal Merger Guidelines states:

The analysis of competitive effects in Sections 6 and 7 focuses on current participants in the relevant market. That analysis may also include some forms of entry. Firms that would rapidly and easily enter the market in response to a SSNIP are market participants and may be assigned market shares.

Also, Section 10, page 28 of the Guidelines states:

A merger is not likely to enhance market power if entry into the market is so easy that the merged firm and its remaining rivals in the market, either unilaterally or collectively, could not profitably raise price or otherwise reduce competition compared to the level that would prevail in the absence of the merger. Entry is that easy if entry would be timely, likely, and sufficient in its magnitude, character, and scope to deter or counteract the competitive effects of concern.

U.S. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, Issued August 19, 2010, available at: <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf>.

¹²⁸ Bates Comcast ORA 0001798, which I include as part of Exhibit SMB-24.

1 A: To describe various municipal projects across the county as “competing vigorously” with
2 private Internet access providers is a stretch. Comcast highlights a plan in Santa Cruz
3 County to provide municipal broadband.¹²⁹ And, unlike in some states, California’s
4 legislature has not completely capitulated to the lobbying efforts of Comcast and other
5 telecommunications companies and prohibited municipalities¹³⁰ from providing Internet
6 access to their residents.¹³¹ The telecommunications companies are lobbying state
7 legislatures and Congress vigorously to prohibit such municipal competition (what little
8 exists).¹³² If Comcast wants to rely on municipal broadband as a vigorous competitor in
9 the market, then it should commit to refrain from using its enormous resources to lobby,
10 post-merger, against such efforts.

11 **Comcast’s cross-marketing agreement with Verizon further entrenches the duopolistic**
12 **characteristic of the voice and the broadband markets.**
13

14 **Q: Are there other aspects of the broadband Internet access market that affect the level**
15 **of competition available for consumers?**

¹²⁹ Bates Comcast ORA 0001798, which I include as part of Exhibit SMB-24.

¹³⁰ Public entities may provide communications services, but Community Service Districts are prohibited from doing so if any private entity is willing to do so. Cal. Gov. Code Section 61100.

¹³¹ An estimated 19 state legislatures have prohibited municipal provision of broadband service. See, for example, <http://www.nytimes.com/2014/11/10/technology/in-rural-america-challenging-a-roadblock-to-high-speed-internet.html?emc=eta1>.

¹³² See, for example, Allan Holmes, “How big telecom smothers city-run broadband,” The Center for Public Integrity, August 28, 2014, available at: <http://www.publicintegrity.org/2014/08/28/15404/how-big-telecom-smothers-city-run-broadband>.; Jon Brodtkin, “Who wants competition? Big cable tries outlawing municipal broadband in Kansas,” *Ars Technica*, January 31, 2014 available at: <http://arstechnica.com/tech-policy/2014/01/who-wants-competition-big-cable-tries-outlawing-municipal-broadband-in-kansas/>.

1 A: Yes. As part of its agreement in 2012 to sell spectrum to Verizon,¹³³ Comcast also
2 entered into a cross-marketing agreement with Verizon, whereby Verizon sells cable
3 company services in areas where Verizon provides DSL (i.e., non-FiOS areas of its
4 serving territory), and Comcast, in turn, sells Verizon's Wireless services. This
5 agreement blunts Verizon's economic incentive to compete in the broadband Internet
6 access market with Comcast, which has the effect of further entrenching Comcast's
7 market dominance. Moreover, the fact that Verizon Wireless is given financial incentives
8 to sell cable company services in areas where Verizon provides DSL (subject to review
9 upon expiration of the Consent Decree in December 2016) facilitates a decision by
10 Verizon to abandon DSL. The FCC and DoJ optimistically hinted that Verizon might
11 reconsider its decision not to expand the FiOS footprint,¹³⁴ but there is little evidence that
12 this optimism is well-founded. Furthermore, the fact that the Consent Decree "limits the
13 duration of the Cable Agent Agreements in the DSL footprint and provides regulators
14 with an opportunity to reassess any effects the Commercial Agreements may have on the
15 broadband marketplace as it continues to evolve"¹³⁵ suggests that the DoJ had concern

¹³³ The transaction was subject to review by the Department of Justice and the FCC. In the Matter of Applications of Cellco Partnership d/b/a Verizon Wireless and SpectrumCo LLC and Cox TMI, LLC For Consent To Assign AWS-1 Licenses; Applications of Verizon Wireless and Leap for Consent To Exchange Lower 700 MHz, AWS-1, and PCS Licenses; Applications of T-Mobile License LLC and Cellco Partnership d/b/a Verizon Wireless for Consent to Assign Licenses, WT Docket No. 12-4, ULS File Nos. 0004942973, 0004942992, 0004952444, 0004949596, and 0004949598, WT Docket 12-175, Memorandum Opinion and Order and Declaratory Ruling, FCC 12-95, released: August 23, 2012.

¹³⁴ Id., at para. 152.

¹³⁵ Id., at paras. 147-157 (explaining that proposed cross-marketing agreements under which Verizon Wireless was provided incentives to sell cable companies' services outside the FiOS footprint raise "concerns regarding the impact of the agreements on Verizon's incentive to compete against the Cable

1 over the potential anticompetitive consequences of the agreement.

2 **Consumers' increasing reliance on higher speed broadband Internet access contributes to**
3 **Comcast's dominance of the market.**

4
5 **Q: Has the FCC established barometers and goals for the download and upload speeds**
6 **for broadband Internet access?**

7 A: Yes, and the national goals have been steadily evolving. When it completed the National
8 Broadband Plan in 2010, the FCC established a "national broadband availability target" of
9 4 Mbps download and 1 Mbps upload speed.¹³⁶ The National Broadband Plan included a
10 recommendation to revisit that target every four years.¹³⁷ More recently, however the FCC
11 has recognized the importance of upload as well as download speeds and has recognized
12 the increasingly data-intensive applications over broadband Internet access and has sought
13 comment on setting higher speed goals for the nation. Specifically, it sought comments in
14 September 2014 on whether it should revise a download speed benchmark of 10 Mbps "to
15 more appropriately reflect the statutory requirements in section 706."¹³⁸ The FCC further

Companies." Id. at para. 147) In its order conditionally approving the agreements, the FCC relies on modifications to the original agreements pursuant to a proposed Consent Decree with the Department of Justice (see para. 5), which reduced but did not entirely eliminate those incentives.

¹³⁶ Federal Communications Commission, Connecting America: The National Broadband Plan, report submitted to the U.S. Congress, March 17, 2010 ("National Broadband Plan"), at 135. The American Recovery and Reinvestment Act of 2009 ("ARRA") was signed into law on February 17, 2009. American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) ("ARRA"). As part of the Broadband Technology Opportunities Program established by the ARRA, the FCC was required to develop a National Broadband Plan by February 17, 2010. The FCC requested an extension of that deadline in January, 2010. See, Letter to Honorable John D. Rockefeller, Chairman, Committee on Commerce, Science and Transportation, United States Senate from Julius Genachowski, Chairman, Federal Communications Commission, January 7, 2010.

¹³⁷ Id.

¹³⁸ In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to

1 sought comments on whether an even higher benchmark may be appropriate and whether it
2 also should raise its benchmark on upload speeds.¹³⁹

3 **Q: Why is the issue of speed important to the Commission’s review of the proposed**
4 **transaction?**

5 A: As I demonstrated earlier in Figure 6, cable companies’ share of the market increases as
6 broadband Internet access speeds increase. Cable companies are better-positioned to
7 meet this demand throughout their footprints than are ILECs, which offer high speeds
8 selectively, depending on where they have chosen to deploy fiber (to support U-verse
9 (AT&T) and FiOS (Verizon)).

10 **Q: Have you reviewed the speed of the broadband Internet access service that the**
11 **Applicants have deployed in California?**

12 A: Not yet. The Applicants will not be submitting their “Form 477” information (which
13 concerns the speeds of their broadband Internet access by census tract) to the FCC until
14 December 11, 2014,¹⁴⁰ and it is my understanding that the Applicants intend to make this
15 information available promptly thereafter.¹⁴¹ In Confidential Tables 5 and 6, in Section
16 III, above, I summarize consumers’ aggregate demand for various broadband speeds, but

All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket No. 14-126, *Tenth Broadband Progress Notice of Inquiry*, released August 5, 2014, at para. 14. The FCC reasons that its own research indicates that 10 Mbps download speed is adequate for a “moderate use household.” Id.

¹³⁹ Id., at paras. 15-16.

¹⁴⁰ FCC Public Notice DA 14-1668, “Form 477 Filing Interface Reopened; Filings of Data as of June 30, 2014 due December 11, 2014,” WC Docket No. 11-10, released November 20, 2014.

¹⁴¹ See, e.g., Comcast response to ORA 3-64, which I include as Exhibit SMB-25.

1 this does not show geographically disaggregated information nor does it show what
2 speeds are *available*, only what speeds consumers have purchased.

3 **Q: Are providers' Form 477s submitted to the FCC on a public basis?**

4 A: No. If Comcast were to agree to provide this information on a public basis, the
5 information could contribute to a more open process for the state to undertake its
6 broadband planning and deployment efforts.

7 **Q: Please elaborate on the relationship of the Applicants' broadband infrastructure to**
8 **the Commission's review of the proposed merger.**

9 A: In considering the stakes of the proposed transaction for the public interest broadly and
10 for consumers specifically, it is useful to consider the importance of broadband Internet
11 access to the welfare and economy of California. Broadband Internet access is widely
12 recognized to be an essential service, like water and electricity, yet policy making has not
13 kept pace with that attribute. Today, consumers' access to and use of a broadband ramp
14 to the Internet vary by community: indeed, the availability, affordability, speed, and
15 options vary in ways that public policy likely would not tolerate for other utilities.¹⁴²

16
17 Moreover, the broadband Internet access market is not effectively competitive – that is,
18 consumers and competitors cannot rely on market forces to yield reasonable rates, terms,
19 and conditions (e.g., quality, reliability, and speed) for broadband Internet access (the

¹⁴² Moreover, for the reasons I discuss earlier (price, reliability), mobile broadband is not an economic substitute for wireline broadband.

1 impact on competitors indirectly affects consumers). Demand for DSL service, which
2 ILECs offer, has been declining, in absolute and relative terms.¹⁴³ DSL service cannot
3 compete with the speeds of cable-based broadband service. Therefore, where there is no
4 U-verse offered by AT&T or FiOS by Verizon, there really isn't any alternative to
5 Comcast's and Time Warner Cable's services in their respective areas for those consumers
6 seeking to purchase broadband Internet access. I urge the Commission to acknowledge
7 this highly concentrated broadband Internet access market as it considers whether the
8 transaction is in the public interest. If, contrary to my recommendation, the Commission
9 does not deny the proposed transaction, it should seek specific commitments from Comcast
10 to increase the availability of affordable broadband Internet access.

11 **Q: What is the basis of your assertion regarding declining demand for ILECs' DSL**
12 **services?**

13 **A:** I rely on public FCC data. The number of ADSL connections has fallen in California from
14 December 2009 to December 2013 from 4.6 million to 4.2 million¹⁴⁴ while the number of
15 cable modem connections has increased from 4.2 million to 5.7 million over the same time
16 period.¹⁴⁵

¹⁴³ I do not oppose the availability of "Model T" versions of broadband Internet access for those who have limited needs, but DSL availability is certainly not a current substitute for the broadband Internet access offerings of cable companies. See, for example, FCC Internet Access Report, at Table 5. Total nationwide DSL line subscriptions declined from 31.2-million in December 2009 to 30.8-million in December 2013. In comparison, total cable modem connections grew from 42.4 million in December 2009 to 54 million in December 2013. *Id.*

¹⁴⁴ FCC Internet Access Services Report, at Table 19.

¹⁴⁵ *Id.*, at Table 20.

1
2 **California has not yet achieved universal broadband Internet access, and will not do so**
3 **without active intervention and leadership by the state’s policy makers.**
4

5
6 **Q: Does the proposed transaction affect the PUC’s ability to fulfill its “Section 706”**
7 **obligations?**

8 A: Yes. The proposed transaction affects the PUC’s ability to fulfill its obligation to
9 promote advanced telecommunications services. Section 706 of the Telecommunications
10 Act of 1996 states, in pertinent part, that:

11 The Commission and each State commission with regulatory jurisdiction
12 over telecommunications services shall encourage the deployment on a
13 reasonable and timely basis of advanced telecommunications capability to
14 all Americans (including, in particular, elementary and secondary schools
15 and classrooms) by utilizing, in a manner consistent with the public
16 interest, convenience, and necessity, price cap regulation, regulatory
17 forbearance, measures that promote competition in the local
18 telecommunications market, or other regulating methods that remove
19 barriers to infrastructure investment.
20

21 Section 706 further states that “[t]he term ‘advanced telecommunications capability’ is
22 defined, without regard to any transmission media or technology, as high-speed,
23 switched, broadband telecommunications capability that enables users to originate and
24 receive high-quality voice, data, graphics, and video telecommunications using any
25 technology.”
26

27 Consumers’ ability to “originate and receive high-quality voice, data, graphics, and video
28 telecommunications” depends on various factors such as suppliers’ willingness to plow

1 back their earnings and synergies into advanced infrastructure as well as on the
2 affordability of such services (which is affected by suppliers' willingness, in the absence
3 of effective competition, to flow through synergies and savings to consumers) through
4 price reductions.

5
6 There are barriers to consumers' adoption of broadband Internet access, which Comcast
7 could devote more resources to eliminating. Of course I do not believe that customers
8 should be forced to subscribe to broadband Internet access, but I do believe that it should
9 be widely available and affordable, and that, where necessary, training be provided to
10 assist consumers in overcoming uncertainty about how to take advantage of the Internet
11 and about its relevance.

12 **Q: Are your *general* concerns about broadband Internet access also *merger-specific***
13 **concerns?**

14 **A** Yes. Merging the nation's largest and third-largest providers of broadband Internet
15 access would eliminates benchmarking of price and performance, in light of the sheer
16 magnitude of the proposed transaction, poses risks to consumers, communities, and
17 competitors. There is presently minimal accountability by Comcast to consumers, to
18 regulators, and to policymakers. The proposed merger would not increase Comcast's
19 accountability, and its proposed purchase of Time Warner Cable would eliminate an
20 important provider as benchmark for such attributes that are of importance to consumers
21 and more broadly to the public interest: service quality, preparedness and responsiveness

1 to natural and man-made emergencies, price, speed, customer service. These are merger-
2 specific concerns. Moreover, because neither California nor the FCC regulates the rates,
3 terms, and conditions of broadband service, there is no oversight to ensure that the
4 merger will be in the public interest and that Comcast will share merger-related benefits
5 with consumers and communities in California.

6 **Broadband adoption: Internet Essentials is insufficient.**

7
8 **Q: Are you familiar with Comcast's Internet Essentials program?**

9 A: Yes. Beginning in May 2011,¹⁴⁶ and pursuant to a federal regulatory commitment,
10 Comcast has been operating its Internet Essentials program to promote broadband
11 adoption by providing discounted broadband to households with schoolchildren eligible
12 for free or reduced lunch.¹⁴⁷ Though originally part of a three-year commitment
13 (associated with the Comcast/NBCU transaction), Comcast has announced that it will
14 continue the program indefinitely.¹⁴⁸

15 **Q: Please describe Internet Essentials.**

¹⁴⁶ In the Matter of Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licensees, FCC MB Docket No. 10-56, Third Annual Compliance Report on Internet Essentials, the Comcast Broadband Opportunity Program, July 31, 2014 ("Internet Essential Compliance Report"), at 3.

¹⁴⁷ Comcast implemented Internet Essentials as part of a regulatory bargain when it sought the FCC's approval of Comcast's acquisition of NBCU. In the Matter of Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licensees, FCC MB Docket No. 10-56, *Memorandum Opinion and Order*, rel. January 20, 2011. See, specifically, Appendix A, at XVI.2. The original condition defined eligible households as those with children eligible for free lunch. However, this eligibility criteria was expanded to include children eligible for reduced price lunch in April 2012. Internet Essentials Compliance Report, at 5. In April 2013, the program was expanded to include low-income children who are homeschooled or attend private and/or parochial schools and meet the reduced-price lunch criteria.

¹⁴⁸ Internet Essentials Compliance Report, at 4.

1 A: Internet Essentials offers low-income families with children who are eligible for free and
2 reduced school lunches broadband service for \$9.95 per month, the option to purchase an
3 Internet ready computer for less than \$150; and options to access free digital literacy
4 training in print, online and in person. There are no activation fees and no equipment
5 rental fees.¹⁴⁹

6 **Q: Does Time Warner Cable offer a program with reduced rates for broadband**
7 **Internet access?**

8 A: Yes. As part of the FCC's "Connect-to-Compete" program,¹⁵⁰ Time Warner Cable
9 established Starter Internet,¹⁵¹ a national pilot program designed for low-income families
10 who did not have access to high-speed Internet service in the home. As structured by
11 Time Warner Cable, families in a select number of schools within the Time Warner
12 Cable service area have been eligible to apply for this program, under which for two
13 years there are no price increases, activation or installation fees, and there are no
14 equipment rental fees for the first two years.¹⁵² Starter Internet, typically offered at 1
15 Mbps upstream/1 Mbps downstream is priced at \$9.95 per month. Families with children
16 enrolled in the selected 550 pilot schools throughout the country were eligible to apply
17 for Starter Internet. Additionally, these families could not have subscribed to Time

¹⁴⁹ Comcast response to CD Q-1:61 (reproduced as Exhibit SMB-26).

¹⁵⁰ <http://www.fcc.gov/document/fcc-and-connect-competite-broadband-fact-sheet>

¹⁵¹ http://www.timewarnercable.com/MediaLibrary/1/1/Content%20Management/campaigns/2012/starter_internet/StarterInternet_FAQs.pdf

¹⁵² http://www.timewarnercable.com/MediaLibrary/1/1/Content%20Management/campaigns/2012/starter_internet/StarterInternet_FAQs.pdf

1 Warner Cable Internet within the previous three months, not have any outstanding Time
2 Warner Cable bills or unreturned equipment, and have a working, Internet-ready
3 computer at home.¹⁵³ I am not persuaded of the merits of excluding families who would
4 be otherwise eligible except that they have previously subscribed to Time Warner Cable
5 Internet within the previous three months because it would seem to penalize those
6 families who have adopted broadband relatively earlier than other families.

7 **Q: How many California households participate in Time Warner Cable's program for**
8 **low-income families?**

9 A: The initial enrollment period for TWC Connect2Compete-related service offering in
10 California commenced on October 1, 2012 and concluded on January 31, 2013, and, as of
11 January 31, 2013, [BEGIN TWC CONFIDENTIAL] [END TWC
12 CONFIDENTIAL] customers had subscribed in the Los Angeles area, and [BEGIN
13 TWC CONFIDENTIAL] [END TWC CONFIDENTIAL] customers had
14 subscribed in the San Diego area.¹⁵⁴ According to Time Warner Cable, as of June 30,
15 2014, TWC's Connect2Compete-related service offering has [BEGIN TWC
16 CONFIDENTIAL] [END TWC CONFIDENTIAL] subscribers in the Los Angeles
17 area and 41 subscribers in the San Diego area."¹⁵⁵ Time Warner Cable did not grant any
18 funds to any California community-based organizations in relation to the

¹⁵³http://www.timewarnercable.com/MediaLibrary/1/1/Content%20Management/campaigns/2012/starter_internet/StarterInternet_FAQs.pdf

¹⁵⁴ Time Warner Cable confidential response to CETF Q1-1, reproduced as Confidential Exhibit SMB-27.

¹⁵⁵ Id.

1 Connect2Compete program.¹⁵⁶

2
3 Between October 1, 2012 and January 31, 2013, Time Warner Cable conducted a national
4 Connect2Compete advertising campaign with a budget of [BEGIN TWC
5 CONFIDENTIAL] [REDACTED] [END TWC CONFIDENTIAL] and a pro-rated amount
6 that it attributes to California of [BEGIN TWC CONFIDENTIAL] [REDACTED] [END
7 TWC CONFIDENTIAL] ¹⁵⁷

8 **Q: Is the program still going on?**

9 A: Clearly there are still participants, but I am not certain about whether enrollment is
10 continuing. It appears that since enrollment ended on January 31, 2013, and the term of
11 the program for any given participant is two years,¹⁵⁸ by January 31, 2015, the program
12 would end. On the other hand, the fact that the subscription level as of [BEGIN
13 CONFIDENTIAL] [REDACTED]
14 [REDACTED] [END CONFIDENTIAL]

15 **Q: Will Comcast offer Internet Essentials post-merger in the Time Warner Cable**
16 **territory?**

17 A: Comcast states that “[p]ost-transaction, qualified customers in the TWC service area will
18 be eligible for Internet Essentials service.”¹⁵⁹ Based on the limited enrollment by

¹⁵⁶ Time Warner Cable response to CETF Q1-4, reproduced as Exhibit SMB-28.

¹⁵⁷ Time Warner Cable confidential response to CETF Q1-5, reproduced as Confidential Exhibit SMB-29.

¹⁵⁸ Time Warner Cable response to CETF Q1-2, included as Exhibit SMB-30.

¹⁵⁹ Comcast response to CD Q-1:61 (reproduced as Exhibit SMB-26).

1 California families in Time Warner Cable's program, and Time Warner Cable's
2 negligible outreach and advertising efforts for its program, the possible expansion of
3 Internet Essentials to Time Warner Cable's footprint has the potential to yield benefits to
4 some low-income households in California. Of course that potential depends critically on
5 Comcast's willingness to commit significant resources to outreach and training.
6 Furthermore, Comcast's intention to expand its IE program is not enforceable.

7 **Q: Do you believe that the Internet Essentials program adequately addresses**
8 **broadband deployment and adoption concerns?**

9 A: No. The program is inadequate to address the wide disparities in broadband Internet
10 access among Californians. As I demonstrate below, the Internet Essentials participation
11 rate is extremely low and the program's scope is unduly narrow.

12 **Q: What is the participation rate in California?**

13 A: The participation rate for Internet Essentials ("IE") in California is only [BEGIN
14 COMCAST CONFIDENTIAL] [REDACTED] [END COMCAST CONFIDENTIAL]. As of
15 June 2014, there were an estimated [BEGIN COMCAST CONFIDENTIAL] [REDACTED]
16 [END COMCAST CONFIDENTIAL] eligible households in Comcast's California
17 service footprint.¹⁶⁰ As of June 28, 2014, Internet Essentials connections in California
18 totaled [BEGIN COMCAST CONFIDENTIAL] [REDACTED] [END COMCAST
19 CONFIDENTIAL] households – a number that represents more than [BEGIN
20 COMCAST CONFIDENTIAL] [REDACTED] [END COMCAST CONFIDENTIAL]

¹⁶⁰ Comcast confidential response to ORA Q-3:12, reproduced as Confidential Exhibit SMB-31.

1 California children and their families.¹⁶¹ Moreover, there is no evidence that Comcast is
2 seeking to adopt best practices based on its IE programs in other states. Comcast did not
3 provide information requested by TURN about the quantities of eligible and participating
4 households in its top ten footprints,¹⁶² which means that I cannot compare the California
5 program with Comcast's IE program in its other operating territories. More importantly,
6 there is no evidence that Comcast has conducted such a comparison, which, if it were to
7 be conducted, could enable Comcast to assess best practices that may contribute to
8 relatively high participation rates in some states relative to other states.

9 **Q: Does the Internet Essentials program provide flexibility to address specific Internet**
10 **access issues in California?**

11 A: Evidently not. In response to CD Q-1:61, Comcast stated:

12 *Internet Essentials* is a national program that is uniform across Comcast's
13 service areas, and thus Comcast has not considered specific modifications
14 to the program based on California's demographics. However, the
15 program involves significant community outreach and partnering with
16 community organizations, and efforts are made to reach out to potential
17 customers from various demographic groups.¹⁶³
18

19
20 In addition, I am concerned that Comcast suggests there is no need to improve the
21 program as there are no shortfalls.¹⁶⁴

22 **Q: Do you have other concerns about the Internet Essentials program?**

¹⁶¹ Comcast confidential response to ORA Q-3:16, reproduced as Confidential Exhibit SMB-32.

¹⁶² Comcast response to TURN Q-1:8, reproduced as Exhibit SMB-33.

¹⁶³ Comcast response to CD Q-1:61, reproduced as Exhibit SMB-26.

¹⁶⁴ Comcast response to ORA Q-3:8, reproduced as Exhibit SMB-34.

1 A: Yes, my primary concern is that it is unduly narrow in scope. Many households, not just
2 those with school-age children, are on the wrong side of the digital divide. The Pew
3 Internet & American Life Project, which has produced numerous studies on Internet use,
4 shows in recent reports (based on national data) that there remains a significant gap in
5 Internet adoption and use by older adults,¹⁶⁵ and also as that “[t]he demographic factors
6 most correlated with home broadband adoption continue to be educational attainment,
7 age, and household income.”¹⁶⁶

8
9 Comcast has not analyzed barriers to broadband adoption among the general population:
10 In response to discovery asking whether within the last three years, any studies or surveys
11 were prepared by or on behalf of Comcast regarding barriers to wireline broadband
12 adoption that relate to age, income, education, urban vs. rural locations, gender or race,
13 Comcast refers to a report which is focused solely on the current Internet Essentials target
14 population, i.e., low-income families with school-age children (those who are eligible for
15 free or reduced-price school lunches).¹⁶⁷ Regarding the report, Comcast states that it

¹⁶⁵ Pew Research Center, April 2014, “Older Adults and Technology Use.” The Report is based, in part, on data from Pew Research Center’s Internet Project July 18-September 30, 2013 and is available at: <http://www.pewinternet.org/2014/04/03/older-adults-and-technology-use/>. That report estimates that 59% of adults ages 65 and over used the Internet and 47% of that age group had broadband in the home.

¹⁶⁶ Pew Research Center, Home Broadband 2013, August 26, 2013, at 3. Pew reports that among households with income under \$30,000 per year, only 54 percent have a broadband connection in the home, compared with 88 percent of homes where the household income is over \$75,000. *Id.* Pew also reports that: “For seniors earning less than \$30,000 annually, 39% go online and 25% have broadband at home.” Pew Research Center, April 2014, “Older Adults and Technology Use.”

¹⁶⁷ In response to discovery regarding whether “any third party evaluated the IE program nationwide and in California since January 1, 2012, Comcast responded that it had “commissioned a study of Internet

1 “included a demographic overview which revealed that the population of Internet
2 Essentials customers is relatively poorer, more Latino, more female, and more educated
3 that the population at-large without broadband at home.”¹⁶⁸ Although this finding is of
4 interest relative to the Internet Essentials program, it does not shed any light on the
5 barriers to adoption that exist for all Californians.

6 **Q: Have you seen any evidence that Comcast is aware of this unduly narrow focus as a**
7 **problem?**

8 A: No. In response to ORA Q-3:9, in which ORA requested information about Comcast’s
9 “plans to improve or enhance Internet Essentials in California, reflecting planned changes
10 over the three years following the merger, including: a. Expansion of eligibility
11 requirements, b. Equipment improvements, c. Expansion into wireless modem
12 offerings, and d. Speed upgrades,” Comcast states:

13 Although there are currently no plans to further enhance *Internet*
14 *Essentials* as per the four criteria specified in this question, Comcast’s
15 trajectory over the past three years speaks for itself. Comcast voluntarily
16 expanded and improved upon the program’s initial design in multiple
17 ways. With input from thousands of partners, including major service
18 organizations like Big Brothers/Big Sisters, Easter Seals, the NAACP, and
19 NCLR, Comcast increased the speed of the service, expanded eligibility,

Essentials customers from an independent communications and technology policy consultant, Dr. John B. Horrigan, who is head of research for the FCC’s National Broadband Plan and a former research director with Pew Research Center’s Internet and American Life Project.” The study was released in March 2014, and as describe by Comcast, “reflects that the service is widely used by participants to do school work; that home users report it helps “a lot”; and that in addition to schools, participation by institutions such as libraries, banks, government agencies, and employers, plays an important role in increasing broadband adoption and utilization.” Comcast response to TURN Q-1:3 (reproduced as Exhibit SMB-35), citing John B. Horrigan, Ph.D., The Essentials of Connectivity: Comcast’s Internet Essentials Program and a Playbook for Expanding Broadband Adoption and Use in America (Mar. 2014) (“Horrigan Report”).

¹⁶⁸ Comcast response to TURN Q:1-12 (reproduced as Exhibit SMB-36), citing Horrigan Report, at 15.

1 created an instant approval process, and made dozens of other
2 enhancements. And, as has been publicly announced, Comcast has
3 extended the program indefinitely – even though the Condition has now
4 been fully satisfied.
5

6 When asked about its goals for its California IE program (such as regarding participation
7 levels, outreach modes, and the speed of broadband), Comcast responded: “The
8 program’s singular goal is to continue closing the digital divide by offering the most
9 comprehensive broadband adoption program in the country.”¹⁶⁹ The response divulges
10 no information about the pace by which Comcast hopes to close the digital divide nor
11 milestones relative to achieving specific participation levels. The digital divide is not a
12 binary divide (those with and without broadband Internet access) but rather includes a
13 spectrum of divides – as faster speeds become the norm, simply “having broadband
14 Internet access” will not close the divide. Therefore Comcast’s lack of vision for the
15 speed it intends to include in IE in future years is of concern.

16 **Q: What then do you recommend to the Commission?**

17 **A:** If the Commission approves the transaction, I urge the Commission to seek a
18 commitment from Comcast to offer IE to all low-income households, regardless of
19 whether they qualify for free or reduced school lunch, as well as to households with
20 members over age 65, and those households with disabled members. Moreover, Comcast
21 should commit to a minimum speed of 4 Mbps (the National Broadband Plan’s initial
22 target) in 2015, increasing to keep pace with the FCC’s target speeds.

¹⁶⁹ Comcast response to TURN Q:1-14, reproduced as Exhibit SMB-37.

1 **Q: Is broadband adoption both a state and national goal?**

2 A: Yes.¹⁷⁰ Moreover, as I discussed above, Section 706 of the Telecommunications Act of
3 1996 sets forth the dual federal-state responsibility to promote advanced
4 telecommunications services. In its investigation of the proposed transaction, the
5 Commission should consider carefully whether Comcast's acquisition of Time Warner
6 would thwart California's achievement of that important goal. The United States is
7 lagging behind other countries, and consumers are harmed as a result.¹⁷¹ As I
8 demonstrate in Section III, post-merger, California would represent a significant portion
9 of Comcast's customer base, and Comcast would be, by far, the nation's largest provider
10 of broadband Internet access service.

11 **Q: What else do you recommend?**

12 A: In addition to expanding the population that IE serves and improving outreach for IE,
13 Comcast should contribute to the state's efforts to fill the broadband deployment voids.¹⁷²

¹⁷⁰ Cal. Pub. Util. Code § 281; §§885-8889; Telecommunications Act of 1996, Pub. L. No. 104-104, § 706(b), 110 Stat. 153 (codified at 47 U.S.C. S 157 note) (1996 Act). See also, Federal Communications Commission, Connecting America: The National Broadband Plan, report submitted to the U.S. Congress, March 17, 2010 ("Plan" or "NBP"), at xi. The American Recovery and Reinvestment Act of 2009 ("ARRA") was signed into law on February 17, 2009. American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) ("ARRA"). As part of the Broadband Technology Opportunities Program established by the ARRA, the FCC was required to develop a National Broadband Plan by February 17, 2010. The FCC requested an extension of that deadline in January, 2010. See, Letter to Honorable John D. Rockefeller, Chairman, Committee on Commerce, Science and Transportation, United States Senate from Julius Genachowski, Chairman, Federal Communications Commission, January 7, 2010.

¹⁷¹ http://www.nytimes.com/2014/10/31/upshot/why-the-us-has-fallen-behind-in-internet-speed-and-affordability.html?smid=fb-share&_r=0

¹⁷² See <ftp://ftp.cpuc.ca.gov/telco/BB%20Mapping/Round%209/R9%20Dec%202013%20Availability%20by%2>

1 Among other things, good information is essential so that the state and municipalities can
2 invest efficiently where the private sector has failed to do so. At a minimum, Comcast
3 should provide detailed broadband mapping information to the state's policy makers.

4
5 Furthermore, it is contrary to the public interest to keep this information as confidential.
6 Broadband Internet access is as essential as are highways and road systems. Efficient
7 private and public investment depends on accurate reliable information. The efficient use
8 of public monies depends on accurate reliable information. Comcast and Time Warner
9 Cable have benefited enormously from their cable franchises, which in turn, have enabled
10 them to deploy broadband Internet access. In turn, Comcast should commit to
11 contributing to the common base of knowledge about the state's advanced
12 telecommunications infrastructure.

13
14 **Broadband adoption varies significantly among consumers, and affordability is one of the**
15 **barriers to adoption.**

16
17 **Q: Is there a correlation between age and other demographic factors and the purchase**

0County-Alphabetical.pdf for county by county fixed broadband availability as of December 31, 2013 (revised June 16, 2014). As of December 31, 2013, the CPUC estimates that 97.8% percent of households in California have fixed broadband with speeds of at least 6 Mbps down and 1.5 Mbps up; 1.5% of households have fixed broadband available, but at speeds lower than 6 Mbps down or 1.5 Mbps up; and 0.7% of households have fixed broadband either not present or slower than 768 kbps down or 200 kbps up. However, as noted in the CPUC's California Advanced Services Fund 2013 Annual Report, "... a census block may be categorized as served when a broadband provider serves at least one household within that census block ... it is important to understand that the Map is not capable of providing a 100 percent accurate representation of the broadband availability down to the household level. This is particular an issue for rural areas of the State, where population is less dense and census blocks cover a larger area." California Public Utilities Commission, California Advanced Services Fund, Annual Report, January 2013 – December 2013, Issued April 2-014, at 18.

1 **of broadband Internet access?**

2 A: Yes. A recent survey of adults in California shows a wide disparity in Internet use and
3 broadband adoption rates among demographic subgroups. According to a July 2014
4 Field Poll/CETF report:

5 There are wide variations in access to broadband Internet at home across
6 different segments of the state's population. While greater than nine in ten
7 Californians age 18-29, college graduates and those with annual household
8 incomes of \$100,000 or more have broadband Internet access at home,
9 significantly smaller portions of the following populations report this:

- 10 • Adults who have not graduated from high school (32%)
- 11 • Spanish-speaking Latinos (46%)
- 12 • Seniors age 65 or older (47%)
- 13 • Residents with annual household incomes of less than \$20,000
- 14 (53%)¹⁷³
- 15
- 16

17 Recent reports (based on national data) by the Pew Research Center ("Pew") contain
18 similar results and show a significant gap in Internet adoption and use by older adults,¹⁷⁴
19 and also show that "[t]he demographic factors most correlated with home broadband
20 adoption continue to be educational attainment, age, and household income."¹⁷⁵

¹⁷³ The Field Poll/California Emerging Technology Fund (CETF), "DIGITAL DIVIDE PERSISTS IN CALIFORNIA: Wide Differences in Internet Use and Broadband Connectivity Across Demographic Subgroups of the State's Adult Population, Release #2476, July 8, 2014 ("Field Poll/CETC Report"), at 2. The report also noted lower adoption rates for residents in the following subgroups: disabled adults (59%), non-citizens (60%), and naturalized citizens (63%). Id.

¹⁷⁴ Pew Research Center, April 2014, "Older Adults and Technology Use" ("April 2014 Pew Report"). The Report is based, in part, on data from Pew Research Center's Internet Project July 18-September 30, 2013 and is available at: <http://www.pewinternet.org/2014/04/03/older-adults-and-technology-use/>. That report estimates that 59% of adults ages 65 and over used the Internet and 47% of that age group had broadband in the home.

¹⁷⁵ Pew Research Center, Home Broadband 2013, August 26, 2013 ("August 2013 Pew Report"), at 3. Pew reports that among households with income under \$30,000 per year, only 54 percent have a

1 **Q: Doesn't the higher rate of cord-cutting among low-income households also affect**
2 **their broadband choices?**

3 **A:** Yes, but this is far more attributable to economic necessity than to mobile wireless
4 broadband being a more attractive functional choice than wireline broadband. In this
5 regard, the Field Poll/CETC notes that "[t]he 8% of California adults using a smart phone
6 as their sole means of connection to the Internet include many of the same groups
7 reporting lower than average Internet connectivity at home" (e.g., Spanish-speaking
8 Latinos, non-citizens, adults who have not graduated from high school, and residents
9 whose annual household income is less than \$40,000).¹⁷⁶

10
11 However, what it most important is the study's observation about the implications of this
12 difference: "This is significant because there are big differences between how
13 Californians with access to broadband through a home computer are using the Internet
14 versus those solely at home through a smart phone."¹⁷⁷ The study identifies large
15 differences in the following Internet uses: visiting government/community web sites,
16 online banking/transferring funds to family members, getting health/medical information

broadband connection in the home, compared with 88 percent of homes where the household income is over \$75,000. *Id.* Pew also reports that: "For seniors earning less than \$30,000 annually, 39% go online and 25% have broadband at home." April 2014 Pew Report.

¹⁷⁶ In my view, wireless broadband Internet access is not an economic substitute for wireline broadband Internet access: the price is typically substantially higher, with data caps that cause the user either to suppress usage (reducing the utility of the service) or to pay much more for that usage.

¹⁷⁷ Field Poll/CETC Report at 2.

1 or communicating with their doctor, or taking a class or training course online.¹⁷⁸

2 Finally, the survey finds that “large majorities of parents with access to broadband
3 Internet access through a home computer use their computer to help their child learn
4 (84%) and obtain information about homework and grades from their child’s school
5 website (75%).¹⁷⁹ By implication, demographic subgroups that must rely on the more
6 limited broadband Internet access capabilities of a smart phone are disadvantaged relative
7 to families with the robust connection available of a fixed wireline broadband connection
8 in their homes.

9 **Q: What then do you recommend regarding Internet Essentials in this proceeding?**

10 **A:** If the Commission, contrary to my recommendation, approves the transaction, I urge it to
11 condition such approval on a finding that commitments are necessary to at least partially
12 offset the harms to consumers and to the public. In Section VI, I discuss the
13 commitments that I recommend the Commission seek from Comcast encompassing not
14 only those regarding improvements to Internet Essentials but also other commitments that
15 could enhance the public interest of the proposed transaction.

16
17 Regarding IE, I recommend the following to assist California to close digital divides:

18 Comcast should commit to (1) increase IE participation rate with specific milestones for

¹⁷⁸ Id.

¹⁷⁹ Id. Along these same lines, another source interviewed high school students who reported while “a smartphone might allow them to apply for a job or download music, but many students have found it impossible to perform the same quality of work on a smartphone that they might be able to on a personal computer.” <http://mashable.com/2013/08/18/digital-divide/>

1 its existing footprint and for its new footprint for the years ending 2015, 2016, and 2017;
2 (2) expand the program to include older citizens (i.e., those aged 65 and over); all
3 Lifeline-eligible customers; and disabled customers; (3) offer a stand-alone broadband
4 Internet access rate of \$15.00 for service with at least 4 Mbps upstream for all consumers
5 for at least five years post-merger (with the upstream and downstream speeds to be
6 adjusted to keep pace with the FCC's benchmark);¹⁸⁰ and (4) expand advertising for
7 Internet Essentials and for the \$15.00 stand-alone option through television, radio, and
8 subway ads in community-appropriate languages.

¹⁸⁰ Broadband adoption closely tracks income and so focusing solely on the lowest-income households is an inadequate societal response to the digital divide. For example, the adoption rate by those with incomes of over \$30,000 and less than \$50,000 is 70% which is significantly less than the 88% adoption by households with incomes above \$75,000. August 2013 Pew Report. Adoption rates among households with members 65 and above are even lower. The adoption rate by senior households with incomes between \$30,000 and \$50,000 is only 51%, which compares starkly with the 82% adoption rate by senior households with incomes above \$75,000. April 2014 Pew Report.

1 **V. CONSUMER PROTECTION**
2

3 **The proposed transaction would strengthen Comcast's gatekeeper role, which would**
4 **jeopardize innovation and free speech.**
5

6 **Q: Earlier, you raised concerns about the post-merger scale of Comcast. Do its size**
7 **and resources raise other concerns for consumers and regulators?**

8 A: Yes. As an extremely large company, which, post-merger, nationally would serve 33.1
9 million video subscribers, 32.3 million broadband Internet access lines,¹⁸¹ and 16.0
10 million voice lines,¹⁸² generating approximately \$87 billion in revenues (with \$9.2 billion
11 in net income) from its various services,¹⁸³ Comcast would possess the ability and the
12 incentive to discriminate against competitors and content providers. Comcast would also
13 have deep pockets for presenting its policy view to federal, state, and local policy makers
14 as well as for pursuing litigation to achieve its corporate interests, including challenging
15 the FCC's and the Commission's authority and oversight over its various services. By
16 contrast, consumers and regulators would possess negligible bargaining resources. This
17 skewed outcome would not be in the public interest.

18
19 Consumer advocates have raised concerns about the future of the Internet and net
20 neutrality. By contrast, Comcast has opposed efforts by the FCC to strengthen its net

¹⁸¹ See Table 1 in Section III of my testimony. The combined company would have \$45 million in equity
<http://corporate.comcast.com/comcast-voices/comcast-and-time-warner-announce-merger-detail-public-interest-benefits-and-undertakings>

¹⁸² See Table 1.

¹⁸³ See Section III, above.

1 neutrality rules by imposing Title II classification to broadband Internet access.¹⁸⁴ As a
2 result of its proposed acquisition of Time Warner Cable, Comcast would possess yet
3 greater resources to discriminate and to extract monopoly profits from its provision of
4 access to the Internet by consumers and by content providers.

5 **Q: But hasn't Comcast agreed to abide the net neutrality provision associated with the**
6 **conditions related to the FCC's approval of Comcast's acquisition of NBCU, which**
7 **would result in Time Warner Cable's approximate ten million broadband Internet**
8 **customers gaining new protection from discrimination as a direct result of the**
9 **proposed merger?**

10 A: Yes, but this (and some other Comcast/NBUC conditions) expire in January 2018, i.e., in
11 approximately three years,¹⁸⁵ which means that this is a short-lived token gesture, perhaps
12 intended by Comcast to support its effort to obtain approval of the proposed transaction.
13 Comcast has indicated that it supports the principles of net neutrality, but opposes the
14 use of Title II regulation to achieve those goals. Given that general support for net
15 neutrality,¹⁸⁶ Comcast should not oppose memorializing that support and extending the

¹⁸⁴ See, e.g., Letter from Kathryn A. Zachem to Marlene H. Dortch, Federal Communications Commission, Re: Notice of Communications, In the Matter of Protecting and Promoting the Open Internet, GN Docket No. 14-28; Framework for Broadband Internet Service, GN Docket No. 10-127, November 10, 2014; <http://corporate.comcast.com/comcast-voices/surprise-we-agree-with-the-presidents-principles-on-net-neutrality-reiterating-our-strong-support-for-the-open-internet>.

¹⁸⁵ In the Matter of Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licensees, FCC MB Docket No. 10-56, *Memorandum Opinion and Order*, rel. January 20, 2011, Appendix A, Provision XX (at page 144, regarding the "term" of the conditions).

¹⁸⁶ See, e.g., http://corporate.comcast.com/openinternet?utm_source=google&utm_medium=ppc&utm_campaign=TW

1 time period of the commitment. Moreover, rules are only valuable if there are sufficient
2 resources for their enforcement by state and federal regulators. Therefore, Comcast
3 should agree to fund the Commission's monitoring and enforcement of this and other
4 commitments that Comcast may make in this proceeding.

5 **Q: Recognizing the important time limitation that now exists for Comcast's net**
6 **neutrality support, how does Comcast nonetheless characterize its open Internet**
7 **commitment?**

8 A: On its website,¹⁸⁷ Comcast states in pertinent part:

9 Several of the NBC Universal conditions will automatically extend to the
10 acquired systems upon the approval and consummation of this transaction,
11 and they ensure substantial protections and benefits, including

12 ...

13 The FCC's Open Internet protections will be extended to millions of
14 additional broadband customers, irrespective of whether the FCC re-
15 establishes such protections for other industry participants. Thus, unlike
16 all other broadband subscribers in the country, the new company's
17 broadband customers will enjoy the protections of the no blocking and
18 non-discrimination rules that were put in place by the FCC,
19 notwithstanding the action by the DC Circuit Court of Appeals vacating
20 those rules.
21

22 **Q: In light of the importance of net neutrality and Title II regulation to innovation and**
23 **to democracy, what then do you recommend in this proceeding?**

CMerger_NB_Natl_MBR&utm_term=+net%20+neutrality-73498301-VQ16-c&iq_id=73498301-VQ16-c.

¹⁸⁷ <http://corporate.comcast.com/comcast-voices/comcast-and-time-warner-announce-merger-detail-public-interest-benefits-and-undertakings> , site visited November 25, 2014.

1 A: Non-discrimination rules are essential to prevent Comcast from interfering with the
2 distribution of non-affiliated content through filtering, blocking or degrading distribution.
3 Government agencies require resources to ensure they are enforced adequately.
4

5 I recommend that the Commission seek a commitment from Comcast to agree to extend
6 its non-discrimination provision through at least seven years after the Commission issues
7 an order in this proceeding, that is, until at least 2022. I also recommend that Comcast
8 commit to cooperate fully with California's efforts to fulfill its Section 706 authority (for
9 example, Comcast should provide state policy makers with detailed, up-to-date
10 broadband mapping information and agree to Commission oversight and mediation of
11 consumer complaints about the billing, termination, and reliability of Comcast's
12 broadband Internet access and voice services).

13 **The quality of Comcast's voice service affects the reliability of consumers' connections to**
14 **public safety.**
15

16 **Q: If customers are dissatisfied with Comcast's voice service, can't they simply "vote**
17 **with their feet" and migrate to ILECs' offerings?**

18 A: Indeed ILECs' voice offerings are ubiquitous. However, as I demonstrate in Section IV
19 above, local voice markets are not competitive. Moreover, the track record of
20 California's largest ILECs regarding service quality shows inadequate service, which
21 means that the incumbent, dominant provider has set a low bar for service quality.
22 Neither AT&T nor Verizon met the minimum Out of Service repair interval standard at

1 any point from the time period spanning 2010 to 2013.¹⁸⁸ When customers' lines are out
2 of service, they are non-functioning, and, so, by failing to repair dial tones in a timely
3 manner, these ILECs are restricting the supply of basic voice service, and are not
4 providing a competitive alternative to Comcast's voice service.¹⁸⁹ Furthermore,
5 consumers confront switching costs and lack sufficient information to make choices.

6 **Q: How do AT&T's and Verizon's failure to meet minimum service quality standards**
7 **relate to this proceeding?**

8 **A:** In a competitive market, one would expect suppliers to improve service quality so as to
9 attract new customers and to avoid losing existing customers. Instead, by failing to repair
10 in a timely manner the OOS troubles that customers report on their lines, AT&T and
11 Verizon demonstrate that it is not concerned about customer defection and, therefore, it
12 has less motivation to keep rates just and reasonable in response to competitive pressure
13 if such pressure existed. ILECs' fiber deployment in some communities and neglect of
14 the infrastructure in other communities underscores that they are not responding to
15 competitive pressures.

¹⁸⁸ R.11-12-001, Order Instituting Rulemaking to Evaluate Telecommunications Corporations Service Quality Performance and Consider Modification to Service Quality Rules, Assigned Commissioner's Amended Scoping Memo and Ruling, September 24, 2014, Attachment A, Staff Report, "California Wireline Telephone Service Quality, Pursuant to General Order 133-C, Calendar Years 2010 through 2013," at 2. Staff stated that "due to their large size in the California market and the significant ramifications of their service quality on public safety and the state economy," they reviewed the OOS performance of AT&T and Verizon. *Id.*, at 3.

¹⁸⁹ By contrast with AT&T's sub-par performance, generally the fourteen General Rate Case carriers met the minimum standards throughout this time period. *Id.*

1 **Merger-related transition and integration issues are in flux, and so the impact of the**
2 **proposed merger on consumers is uncertain.**
3

4 **Q: Have you reviewed Comcast's representations with respect to its plans for migrating**
5 **Time Warner Cable's customers as a result of the transaction?**

6 A: Yes. I have reviewed discovery responses in this proceeding and the public (i.e.,
7 redacted) version of Comcast's response to the FCC's August 21, 2014 Information and
8 Data Request filed September 11, 2014.¹⁹⁰ Essentially, there is no migration plan in
9 place and in Comcast's own words, the "integration process remains quite fluid."¹⁹¹

10 **Q: Does Comcast address specifically whether Time Warner Cable customers will be**
11 **able to maintain their current service plans in California?**

12 A: No. In its public response to CD Q-1:34, Comcast states:

13 Any plans for the acquired customers to retain their current service plans
14 are still being evaluated and considered by Comcast. However, as stated
15 in the Joint Application, because the transaction will be conducted at the
16 holding company level, it will be seamless to TWC customers. After
17 closing this transaction, if Comcast wishes to make additional changes that
18 require regulatory approval, such as changes to "dba names, rates, terms,
19 or conditions of service . . ." Comcast will follow applicable California
20 filing and notice requirements associated with such changes. Application
21 at 21.
22

¹⁹⁰ Letter from Kathryn A Zachem, Senior Vice President, Regulatory and State Legislative Affairs, Comcast Corporation to Marlene H. Dortch, Secretary, Federal Communications Commission, RE: Applications of Comcast Corporation, Time Warner Cable Inc., Charter Communications, Inc., and SpinCo for Consent to Assign Licenses or Transfer Control of Licenses, MB Docket No. 14-57, September 11, 2014 (Comcast 9/11/2014 redacted response to FCC Information and Data Request) Available at: <http://apps.fcc.gov/ecfs/document/view?id=7522145519>. I include excerpts from the redacted response, related to migration plans, as Exhibit SMB-38 (specifically, the cover page, and pages 240 through 242).

¹⁹¹ Comcast 9/11/2014 redacted response to FCC Information and Data Request, at response to 88(a), p. 240 (included as Exhibit SMB-38).

1 In other words, Comcast seems to imply to the FCC that review of the transaction need
2 not include customer migration issues and that such issues are an entirely separate matter.
3 Yet, Comcast has also indicated to the FCC that it is coordinating with state public utility
4 commissions and local franchising authorities about the provision of notice to Time
5 Warner Cable customers.¹⁹²

6 **Q: What do you recommend to minimize the potential adverse impact on consumers**
7 **resulting from the proposed merger?**

8 A: I recommend that the Commission require that Comcast submit, and the Commission
9 review carefully, any plans for consumer notice. I also recommend that the Commission
10 ensure that the migration process is transparent and relatively seamless for consumers and
11 that notice be provided in languages that are appropriate for the intended communities.
12 Consumers will undergo a fair amount of hassle if they have to switch out equipment and
13 e-mail addresses, for example. Relying on vague claims by Comcast that notice will be
14 “extensive” and through bill and e-mail notifications,¹⁹³ is not sufficient to protect the
15 public interest.

16 **Q: Has Comcast made any guarantees about rates, pricing plans and bundles that**
17 **consumers can expect as a result of the proposed transaction?**

18 A: No. In response to CD Q-1:32, Comcast indicates that all of its plans are “in a very
19 preliminary state” and, therefore, it has not made any decisions about rates and plans in

¹⁹² Id., at response to 88(a), p. 241 (included as part of Exhibit SMB-38).

¹⁹³ Comcast public response to CD Q-1:33. I include the response as Exhibit SMB-39.

1 California.

2 **Q: But, certainly no consumers will lose categories of service, correct?**

3 A: Not necessarily. Comcast doesn't seem to even be guaranteeing that consumers will have
4 voice and broadband options throughout its California footprint. In response to CD Q-
5 1:75, Comcast states: "At this time, however, *there are no current plans* under which
6 subscribers in any Census Block would lose broadband and voice services as a result of
7 the transaction."¹⁹⁴

8 **Q: Do Comcast's responses to the FCC shed any more light on migration plans?**

9 A: No. Indeed, Comcast's responses show just how little Comcast knows about Time
10 Warner Cable's systems. Comcast states that it "does not have full access to information
11 regarding the composition or status of the systems it is acquiring . . . Comcast is
12 continuing to learn about the systems, assets, and customers it will acquire."¹⁹⁵ Comcast
13 acknowledges that its migration plans are:

14 . . . subject to a host of complex and inter-related technological, business,
15 and legal issues. To name just one example, Comcast cannot transition
16 TWC customers to all of Comcast's services until the market in question
17 has been migrated to all-digital, so those customers can access and utilize
18 all of Comcast's offerings; various other activities and processes, such as
19 back-office support systems and operating support systems, among others,
20 must be integrated as well.¹⁹⁶

¹⁹⁴ Emphasis added.

¹⁹⁵ Comcast 9/11/2014 redacted response to FCC Information and Data Request, at response to 88(a), p. 240 (included as part of Exhibit SMB-38).

¹⁹⁶ Comcast 9/11/2014 redacted response to FCC Information and Data Request, at response to 88(a), p. 241 (included as part of Exhibit SMB-38). Comcast provides the FCC with a projection of how long it will be before Time Warner customers have access to Comcast products, but that information is redacted. Comcast provided additional alleged confidential materials regarding customer migration as part of its response to FCC Information and Data Request, at response to 88. I was unable to review that material.

1
2 **Q: What do you conclude regarding customer migration?**

3 A: The customer migration plans are preliminary and there are no guarantees that the
4 process will be smooth or transparent. If the Commission approves the proposed
5 transaction, it should ensure that there is adequate notice and that consumers do not lose
6 access to critical services or confront rate increases. Also, although I understand that the
7 Commission does not have oversight of VoIP, the Applicants could enhance the public
8 interest of their proposed merger by agreeing to meet specific minimum thresholds of
9 service quality for Comcast's voice service. Similarly, the Applicants could commit to
10 meet certain minimum thresholds of service quality for their broadband Internet access
11 services.

12
13 **Consumers' increasing reliance on Comcast's VoIP service for a link to the public switched**
14 **network underscores the importance of consumer education regarding the safety**
15 **limitations of the service.**

16 **Q: In Section IV, you discuss the trend of increasing reliance by households on VoIP to**
17 **connect to the public switched network. How could Comcast improve the public**
18 **benefits of the proposed transaction in this regard?**

19 A: Comcast could commit to contribute to consumers' education regarding the limitations of
20 VoIP as it relates to VoIP reliability.

21 **Q: Why is education regarding the impact of power outages on VoIP important?**

22 A: As I discussed earlier, three out of ten households rely on VoIP for their voice link, and
23 the trend is one of increasing VoIP demand. However, VoIP service (whether "over the

1 top” or facilities-based) does not offer the same level of reliability that ILECs’ basic local
2 exchange service does. VoIP service relies upon power at the consumer’s location, or
3 upon a battery of limited life that will not function during a prolonged power outage (and
4 on the reliability of the underlying IP platform that cable companies or ILECs use).

5 During the time when consumers may be most vulnerable, and need their
6 telecommunications services the most, their VoIP service may not be working for hours
7 or days on end due to the power outage. A review of top cable company websites shows
8 that VoIP providers acknowledge this issue on their websites and a review of federal and
9 state government websites further corroborates this concern:

- 10 • Comcast states: “Service (including 911/emergency services) may not function
11 after an extended power outage.”¹⁹⁷ Customers can purchase a backup battery
12 from Comcast that will provide up to 8 hours standby time or 5 hours of talk
13 time.¹⁹⁸
- 14 • Cox states: “Modem uses household electrical power to operate. Telephone
15 service, including access to e911 service, will not be available during a power
16 outage without a battery or if the modem is moved or inoperable. New modem
17 installs do not come with a battery. You may purchase a battery from Cox or, if
18 you are a Lifeline customer, obtain a battery from Cox without charge. You must
19 monitor and replace the battery as needed.”¹⁹⁹

¹⁹⁷ <http://wwwb.comcast.com/home-phone-service.html> .

¹⁹⁸ <http://customer.comcast.com/help-and-support/phone/troubleshooting-battery-issues-with-digital-voice>

¹⁹⁹ www.cox.com/battery; http://www.cox.com/residential/phone/terms-and-conditions.cox#Phone-item-cdt_essential .

- 1 • Charter states: “Charter Spectrum Voice will also work during a power outage
2 with the appropriate backup battery installed* [Note reads: Charter provides an
3 optional back-up battery for an additional cost]. This battery will provide up to
4 eight hours of stand-by and five hours of talk time to provide you with Charter
5 Spectrum Voice services even during a power outage.”²⁰⁰
- 6 • As noted by the FCC in a consumer guide regarding VoIP: “VoIP service may not
7 work during a power outage, or when the Internet connection fails or becomes
8 overloaded.”²⁰¹
- 9 • See, also, a publication entitled: “Caution VoIP Subscribers, A 9-1-1 call made
10 with VoIP phone service may not bring the assistance that you need.”²⁰²

11 **Q: Is the FCC concerned about the public safety implications of VoIP service?**

12 **A:** Yes. For example, in a recent blog post, FCC Chairman Wheeler noted that he was
13 proposing “steps to ensure that consumers using these next generation networks and
14 services – whether cable coax or telecommunications fiber – can reach 911 and other
15 emergency services even when the power goes out.”²⁰³ My concerns are twofold: (1)
16 consumers may not learn fully about VoIP’s limitation until they are in the midst of a
17 power outage; and (2) Comcast may lack the incentive to pursue long-lasting

²⁰⁰ <https://www.charter.com/browse/phone-service/phone> .

²⁰¹ See <http://www.fcc.gov/guides/voip-and-911-service> . See, also,
http://www.voip.com/help/residential/your_account/911_dialing/power_outages_911.aspx .

²⁰² Produced by California 9-1-1 Emergency Communications Office, www.td.dgts.ca.gov/services/911,
available at: <http://www.elkgrovepd.org/support-services/printables/VoIPBrochure.pdf> .

²⁰³ “Technology Transitions: Consumers Matter Most,” Blog post, October 31, 2014,
<http://www.fcc.gov/blog/author/Tom%20Wheeler>.

1 technological solutions. As a result of merging with Time Warner Cable, Comcast's
2 VoIP subscribership base would increase substantially. Comcast could enhance the
3 public interest of the proposed transaction by committing to increased consumer outreach
4 and education regarding VoIP, and by committing funds for research and development
5 into deploying advanced, long-lasting batteries to all consumers at no charge.

6 **Comcast has violated consumers' privacy previously, which raises concerns regarding its**
7 **plan to increase substantially its subscriber base.**

8
9 **Q: Should the Commission be concerned about consumers' privacy, if the merger**
10 **occurs?**

11 A: Yes. As I discuss above, Comcast's post-merger plans for transitioning Time Warner
12 Cable customers and integrating them into Comcast's operations, billing, and customer-
13 service are virtually non-existent. The Commission should seek assurances from
14 Comcast that it is prepared fully to protect the privacy of its existing customers as well as
15 those it proposes to acquire from Time Warner. I discuss one such approach below.

16 **Q: What is the basis of your concern about Comcast's treatment of customers'**
17 **privacy?**

18 A: The Commission has investigated previously concerns about Comcast breaching
19 customers' privacy.²⁰⁴ Between 2010 and 2012, Comcast published the telephone

²⁰⁴ See Investigation on the Commission's Own Motion into the Operations, Practices, and Conduct of Comcast Phone of California, LLC (U-5698-C) and its Related Entities (collectively "Comcast") to Determine Whether Comcast Violated the Laws, Rules, and Regulations of this State in the Unauthorized Disclosure and Publication of Comcast Subscribers' Unlisted Names, Telephone Numbers, and Addresses, Order Instituting Investigation into the Unauthorized Disclosure and Publication of Unlisted Telephone Numbers by Comcast, Investigation 13-10-003 (issued Oct. 8, 2013).

1 numbers and addresses of more than 74,000 individuals and households who had paid to
2 keep this personal information unlisted.²⁰⁵ These consumers represented more than half
3 of the California customers who had subscribed to Comcast's unlisted phone service.²⁰⁶
4 As reported in one article: "While the breach hit California the hardest, it also occurred
5 with Comcast customers in other states. These numbers were treated just like ordinary
6 listed phone numbers, licensed by Comcast to 'publishers,' directory assistance
7 providers, and apparently passed on to other databases and published for everyone to
8 see."²⁰⁷

9 **Q: The Communications Division propounded interrogatories to Comcast regarding**
10 **privacy safeguards. Did you review Comcast's responses to these questions?**

11 **A:** Yes. For example, in response to one question,²⁰⁸ Comcast states:

12 Comcast has not experienced and is not aware of any breaches involving
13 customer information similar in scope or scale to those reported in the
14 media over the last year. However, despite our efforts described above in
15 Q-1:42, there have been isolated incidents that have resulted from
16 process, employee and third-party service provider failures to follow
17 privacy safeguards. In one instance, there was a process error that led to
18 an inadvertent publication of unlisted numbers of certain Comcast's
19 customers. Comcast took immediate steps to fix the problem, to work with
20 its vendor to remove all such listings, to investigate the period and extent of
21 the inadvertent publication and to notify affected customers and provide
22 them with refunds. Comcast also established a dedicated toll free number

²⁰⁵ "Comcast Data Breach Leaks Thousands of Unlisted Phone Numbers, Threatening Customers' Privacy," Electronic Frontier Foundation, August 25, 2014.
<https://www.eff.org/deeplinks/2014/08/comcast-data-breach-leaks-thousands-unlisted-phone-numbers-threatening-customers>

²⁰⁶ Id.

²⁰⁷ Id.

²⁰⁸ I include Comcast's response to CD Q-1:43 as Exhibit SMB-40.

1 and worked with impacted customers who contacted the number to
2 provide them with additional remedies tailored to meet their individual
3 needs including free telephone number changes, additional service credits
4 and reimbursements for home security systems. The error was
5 acknowledged and voluntarily reported by Comcast to the CPUC. . . .
6 Other smaller incidents have included employee theft of customer
7 information, improper disposal of business records containing customer
8 information and third party criminal and fraudulent activity targeting
9 businesses and consumers generally. These incidents may have resulted in
10 the loss, compromise or potential compromise of electronic and
11 physical copies of customer information, such as names, address,
12 telephone numbers, financial account information and social security
13 numbers. Upon discovery we took appropriate steps to fix the problems
14 and communicate with customers and law enforcement.
15

16 **Q: Based on this response, should the Commission assume that no further regulatory**
17 **safeguards are needed to protect consumers from future breaches of their privacy?**

18 **A:** Absolutely not. Merging two huge companies would require substantial administrative,
19 system, and management resources and attention. It is critically important that in its
20 efforts to integrate two large national companies and to transition a large customer base,
21 Comcast not jeopardize the privacy of its current and future customers. Comcast likely
22 will be seeking to cut costs by eliminating staff positions, which will further jeopardize
23 Comcast's ability to protect the privacy of its existing and new customers. Also, at some
24 point, Comcast may integrate customer databases and billing systems, which would also
25 potentially raise risks for consumers' privacy.

26 **Q: Do you have any recommendations to mitigate against this possible consumer**
27 **harm?**

1 A: Yes. Comcast should submit to the Commission, for the Commission's review and
2 approval, its plan for implementing a special notification for all Time Warner Cable
3 customers who subscribe to unlisted service regarding any and all plans for migrating
4 them to Comcast's systems for billing, databases, and customer listings. Finally,
5 Comcast should agree to pay penalties in the event of any future breaches of privacy,
6 with the penalty monies to be allocated to the Commission's enforcement program.

7 **Competitive pressures are insufficient to cause Comcast to share merger-related synergies**
8 **with consumers**
9

10 **Q: How does P.U. Code Section 854(b)(2) relate to the review of the proposed merger?**

11 A: It is my understanding that P.U. Code Section 854(b)(2) cannot be applied directly to this
12 transaction because the Commission does not have rate making authority for Comcast's
13 services. This makes a critical examination of the public interest aspects of the
14 transaction even more important. This portion of the California code provides that the
15 proposal "equitably allocates, where the Commission has ratemaking authority, the total
16 short-term and long-term forecasted economic benefits, as determined by the
17 Commission, of the proposed merger, acquisition, or control, between shareholders and
18 ratepayers" and that "[r]atepayers shall receive not less than 50 percent of those benefits."
19

20 Given that § 854(b)(2) is unavailable in this case due to the fact that the Commission
21 does not have ratemaking authority over Comcast's services, consumers cannot receive a
22 tangible economic benefit from this transaction. Thus, the other elements of the review
23 take on considerably more significance, and, the burden of proof on Comcast and Time

1 Warner Cable to demonstrate that the proposed transaction and any commitments they
2 may make in association with the proposed transaction are in the public interest should be
3 higher.

4 **Q: Have you reviewed information put forth by Joint Applicants with respect to**
5 **anticipated merger synergies?**

6 A: Yes. My review of their projected synergies leads to two primary concerns: the proposed
7 transaction's impact on employment (and thus communities in California)²⁰⁹ and whether
8 any synergies will accrue to consumers either through price reductions, new services,
9 investment in the network, for example, or whether synergies will accrue to shareholders,
10 instead.²¹⁰

11 **Q: Does Comcast promise to share synergies with consumers?**

12 A: No. The benefits of the proposed transaction to consumers are vague. Comcast is not
13 promising any price reductions or other supposed benefits of a competitive market.²¹¹

14 Instead, Comcast simply asserts that the proposed transaction will either maintain or

²⁰⁹ Comcast does not know how the proposed transaction would impact employees in California at this time. A.14-04-013 Joint Application, at 23.

²¹⁰ See, e.g., Comcast response to NAAC Q-1:11, stating: "Comcast has not made any specific determinations regarding how any money that is saved from reorganization and/or rationalization will be spent." I have included Comcast response to NAAC Q-1:11 as Exhibit SMB-41.

²¹¹ Cable prices continue to rise even as companies suggest the market is competitive. See "How to save money on triple-play cable services, Navigate the changing world of TV, Internet, and home phone service—and save money doing it," *Consumer Reports*, March 2014, at 3. The article compared the FCC's published data on the average price of expanded basic cable television (a step up from providers' entry level option) for the years 1998 through 2012 to the theoretical cable price, had the price increased by the Consumer Price Index. According to Consumer Reports, based on that barometer, consumers paid \$1,760, more for cable than they would have had cable price increases mirrored inflation.

1 improve financial conditions and maintain or improve quality of service.²¹² Given that
2 the voice and broadband Internet access markets are not competitive (see Section IV,
3 above), there is no incentive for Comcast to flow through any projected synergies to
4 consumers through price reductions, deployment of broadband to underserved or
5 unserved areas, or new and innovative services. Indeed, in response to CD Q-1:54, which
6 asks: “If there are any cost savings resulting from the merger, will they be passed on to
7 the customers? If so, what mechanisms will be used to pass on such savings?” which I
8 include as Exhibit SMB-43, Comcast responded with information about expected cost
9 savings, but failed to discuss how any of the projected cost savings would be passed on to
10 consumers.

11 **Q: Has Comcast quantified the expected cost saving and other synergies associated**
12 **with the proposed transaction?**

13 **A:** Yes, at the national level. In its Public Interest Statement filed with the FCC, Comcast
14 estimates cost savings and other synergies of \$1.5 billion annually.²¹³

15 **Q: Do the Joint Applicants provide any information with respect to what portion of the**
16 **synergies may be due to California-specific savings and synergies?**

²¹² A.14-04-013 Joint Application, at 22-23. CD Q-1:52 asks specifically what the financial benefits of the transaction are in California and Comcast cites its Application which simply states: “Joint Applicants submit that the merger will enhance the financial condition of the companies, which in turn will inure to the benefit of TWCIS (CA).” Id., at 22. I attach Comcast response to CD Q-1:52 as Exhibit SMB-42.

²¹³ FCC Public Interest Statement, at 27. See, also, Comcast confidential response to OCA Q-3:61, which I provide as Exhibit SMB-44.

1 A: No. Comcast indicates that it did not “quantify the merger synergies attributable to a
2 particular State.”²¹⁴

3 **Q: Have you calculated an estimate of California consumers’ “share” of merger**
4 **synergies?**

5 A: Yes, I have made a rough estimate based on the minimal information Joint Applicants
6 have provided in this proceeding and to which I have access. When asked to quantify the
7 portion of Comcast’s post-merger customer base that California consumers would
8 represent, Comcast estimated that [BEGIN COMCAST CONFIDENTIAL] [REDACTED]
9 [END COMCAST CONFIDENTIAL] of its pro forma broadband and voice subscribers
10 would be in the state of California.²¹⁵ A back of the envelope estimate, then, indicates
11 that roughly [BEGIN COMCAST CONFIDENTIAL] [REDACTED] [END COMCAST
12 CONFIDENTIAL] in annual synergies should accrue to California in some form to
13 benefit consumers and communities.

14 **Q: What then do you conclude based on your estimate of California’s share of the**
15 **Applicants projected synergies?**

16 A: Because the Commission does not have ratemaking authority over Comcast’s services,
17 Section 854(b)(2) is not an option. Therefore the other elements of the Commission’s
18 review take on substantially more significance, and, the burden of proof on Comcast and
19 Time Warner Cable to demonstrate that the proposed transaction is in the public interest

²¹⁴ Comcast response to CD Q-1:74, which I provide as Exhibit SMB-45.

²¹⁵ Comcast confidential response to CD Q-1:60, which I reproduce as Confidential Exhibit SMB-3.

1 should be higher. In Section VI, below, I identify some ways that the Applicants could
2 enhance the public interest of the proposed merger.

1
2
3 **VI. RECOMMENDATIONS**
4
5

6 **Q: Please summarize your major conclusions about the potential impact of the**
7 **proposed merger on residential consumers in California.**

8 A: Comcast's proposed acquisition of Time Warner Cable, which would increase the
9 quantities of Comcast's video, broadband Internet access, and voice subscribers by
10 approximately 50 percent and its revenues by approximately one-third, is a "high-stakes"
11 transaction with far-reaching repercussions. The California economy, communities, and
12 consumers increasingly depend on Comcast's network and services. As a high-tech state,
13 California depends critically on access to a state-of-the-art, globally competitive
14 advanced public network. The innovation, affordability, speed, resiliency, and ubiquity
15 of Comcast's broadband network directly and significantly affect California's ability to
16 compete in the global market place, attract talent and businesses, bolster innovation,
17 support adequate health care, support aging in place, enable remote learning, and
18 encourage civic engagement, among other things.

19
20 The proposed transaction presents a unique and important opportunity for the
21 Commission to establish adequate safeguards to ensure accountability by a company that
22 (1) already has vast resources; (2) is often a monopoly provider of an essential service –
23 broadband Internet access (at best a duopoly); (3) increasingly provides another essential
24 service - wireline voice service; (4) is a gatekeeper to the Internet (and therefore to

1 competition, innovation and free speech); and (5) controls content, such as NBCU, which
2 rides over the broadband “pipes” that Comcast controls.

3 **Q: Have the Applicants demonstrated that the proposed transaction is in the public**
4 **interest?**

5 A: No. Instead, in its pursuit of synergies, Comcast likely will eliminate positions and thus
6 diminish employment in the state. Its pursuit of synergies could also cause it to cut
7 operating expenses relating to the resiliency of its network and its customer service
8 operations, and create pressure to raise prices for its services. The proposed transaction
9 likely would make Comcast less accountable to its consumers, to regulators and to policy
10 makers. Moreover, the transaction would eliminate potential competition between two
11 large companies and also would eliminate a valuable benchmarking tool. The benefits
12 that the Applicants describe are vague. I recommend that the Commission reject the
13 proposed transaction.

14 **Q: If the Commission, contrary to your recommendation, approves the transaction,**
15 **should it seek commitments from Comcast to mitigate possible merger-related**
16 **adverse consequences, to benefit the economies of the state and local communities,**
17 **and to bolster the state’s ability to fulfill its Section 706 mandate?**

18 A: Yes. For the reasons I set forth in detail throughout my testimony I recommend that the
19 Commission seek the following commitments from Comcast:

20 **Broadband deployment:** (1) Annual report to the Commission with data and maps
21 showing the speed and deployment of its broadband Internet access with each community

1 served along with the median income of each of the communities served, and if there are
2 any significant deployment disparities that appear to be linked to communities' income, a
3 detailed explanation for such apparent disparities. (2) Submission of Form 477 data
4 (which provides geographically disaggregated data about the demand for Comcast's
5 broadband Internet access, by speed) to the Commission Staff, ORA, TURN, and other
6 intervenors within one week of such submission to the FCC, subject to the appropriate
7 proprietary treatment.

8 **Broadband adoption:** (1) Increased outreach efforts for Internet Essentials, with the
9 goal of increasing program participation; (2) Commitment to increasing IE participation
10 rates with specific milestones for Comcast's existing footprint and for its new footprint
11 for the years ending 2015, 2016, and 2017; (3) Expanded advertising for Internet
12 Essentials through television, radio, subway ads in community-specific languages; (4)
13 Expanded eligibility for Internet Essentials to include all households who are eligible for
14 the Lifeline Program; households with disabled members; and households with members
15 aged 65 and above.

16 **Broadband speeds:** The minimum speed offered through the Internet Essentials will be 4
17 Mbps. Subsequent increases in the minimum speed will track FCC-established speeds
18 for broadband.

19 **Unbundled broadband Internet access:** (1) Option for at least five years from the date
20 of the Commission's order for residential customers to purchase broadband Internet
21 access on a stand-alone with a download speed of at least 4 Mbps for no more than

1 \$15.00 per month; (2) Advertising in community-appropriate languages for the stand-
2 alone option through television, radio, and subway ads.

3 **Municipal broadband:** Will not oppose any municipality's broadband deployment plans
4 and execution; will not lobby for or support state legislation that would prohibit
5 municipalities' broadband deployment.

6 **Nondiscriminatory access:** Will extend the Comcast/NBCU net neutrality commitment
7 to seven years beyond the date of the Commission's order, that is, until at least 2022.

8 **Unbundled voice:** option for at least five years from the date of the Commission's order
9 (that is, until at least 2020) for customers to purchase voice on a stand-alone basis for no
10 more than \$20/month.

11 **Participation in Lifeline Program:** Commitment to participate in Lifeline program, or,
12 in the alternative, to offer stand-alone voice for no more than \$20 per month, and to
13 waive the installation fee.

14 **Public safety and reliability:** (1) Commitment to work with local and state emergency
15 officials to prepare for and respond to natural and manmade emergencies and power
16 outages ,and to report to local and state emergency officials on lessons learned from such
17 efforts. (2) Five-year commitment to conduct comprehensive consumer education
18 regarding the limitations of VoIP-based service during prolonged power outages. (3)
19 Five-year commitment to report outages to the Commission that affect (a) voice or (b)
20 broadband Internet access.

1 **Affordability:** (1) Five-year commitment to allow Time Warner Cable's customers to
2 retain the products at the prices that were in effect at the time the Application was
3 submitted to the Commission (i.e., April 11 2014); (2) Five-year commitment to not raise
4 the rates for any products for Time Warner Cable and Comcast residential customers,
5 whether offered on a stand-alone, packaged, or bundled basis.

6 **Transition:** (1) Commitment to seek approval from the Commission of proposed
7 education of customers regarding customer migration from Time Warner Cable to
8 Comcast. (2) Commitment to increase staffing levels at the time of transition to handle
9 customer queries promptly.

10 **Compliance with merger-related commitments and enforcement if Comcast fails to**
11 **comply:** Demonstrate compliance with its commitments through submission of annual
12 reports to the Commission and to all intervenors to this proceeding. Intervenors should
13 have the ability to petition the Commission to pursue enforcement if intervenors
14 determine that Comcast has failed to comply with the merger-related commitments it
15 makes in this proceeding.

16
17 **Conclusion**

18
19 **Q: Does this conclude your initial testimony?**

20 **A:** Yes. However, within the limited time frame of this proceeding, I have not yet had the
21 opportunity to review and to analyze any of the highly confidential documents that the
22 Applicants submitted to the FCC in my preparation of initial testimony. Also, the

1 Applicants will not be submitting their “Form 477” information (which concerns the
2 speeds of their broadband Internet access) until on or after December 11, 2014.

I declare under penalty of perjury under the laws of the State of California that the facts set forth above are true and correct to the best of my knowledge and information. This declaration was executed this 10th day of December 2014 in Newburyport, Massachusetts.

A handwritten signature in cursive script, reading "Susan M. Baldwin", written over a horizontal line.

Susan M. Baldwin

SUSAN M. BALDWIN
17 Arlington Street
Newburyport, MA 01950
978-255-2344
smbaldwin@comcast.net
smbaldwinconsulting.com

Susan M. Baldwin specializes in telecommunications economics, regulation, and public policy. She has also provided technical assistance and testified regarding the retail electric market. Since 2001, Ms. Baldwin has been an independent consultant. Ms. Baldwin has been actively involved in public policy for thirty-six years, thirty of which have been in telecommunications policy and regulation. Ms. Baldwin received her Master of Economics from Boston University, her Master of Public Policy from Harvard University's John F. Kennedy School of Government, and her Bachelor of Arts degree in Mathematics and English from Wellesley College. Ms. Baldwin has extensive experience both in government and in the private sector.

Ms. Baldwin has testified before 21 state public utility commissions, including: the Arkansas Public Service Commission, California Public Utilities Commission, Colorado Public Utilities Commission, Connecticut Department of Public Utility Control, District of Columbia Public Service Commission, Idaho Public Utilities Commission, Illinois Commerce Commission, Indiana Utility Regulatory Commission, Iowa Utilities Board, Maryland Public Service Commission, Massachusetts Department of Telecommunications and Cable, Nevada Public Service Commission, New Hampshire Public Utilities Commission, New Jersey Board of Public Utilities, Public Utilities Commission of Ohio, Pennsylvania Public Utility Commission, Rhode Island Public Utilities Commission, Tennessee Public Service Commission, Vermont Public Service Board, Washington Utilities and Transportation Commission, and the Public Service Commission of West Virginia. Ms. Baldwin has also authored numerous comments and declarations submitted in various Federal Communications Commission proceedings.

Ms. Baldwin has also participated in projects in Delaware, Hawaii, Illinois, New York, South Dakota, and Canada on behalf of consumer advocates, public utility commissions, and competitive local exchange carriers. Ms. Baldwin has served in a direct advisory capacity to public utility commissions in the District of Columbia, Massachusetts, New Mexico, Utah and Vermont. Ms. Baldwin has also testified on behalf of public utility commission staff in Idaho and Rhode Island. Ms. Baldwin has testified before state legislative committees in Maryland, Massachusetts, Ohio, and Pennsylvania.

In her capacity as an independent consultant, Ms. Baldwin has consulted to and testified on behalf of consumer advocates on diverse matters including broadband deployment, numbering resources, unbundled network element (UNE) cost studies, incumbent local exchange carriers' requests for competitive classification of services, mergers and spin-offs, rate cases, universal service, service quality, and state *Triennial Review Order* (TRO) proceedings. She prepared comprehensive testimony analyzing mass market impairment on behalf of the New Jersey Division of Rate Counsel, the Arkansas Office of the Attorney General, and the Utah

Committee of Consumer Services. (Testimony was not filed in Arkansas or Utah because of the DC Circuit Court ruling in *USTA v. FCC*, which caused these states to postpone their investigations of impairment.)

Ms. Baldwin has contributed to numerous comments submitted to the FCC on diverse aspects of broadband in various proceedings on topics such as data collection, mapping, deployment, universal service, affordability, consumer protection, and network management. Also, in state regulatory proceedings that have examined carriers' proposals for spin-offs and for mergers, she has recommended conditions concerning broadband deployment.

Ms. Baldwin served as a direct advisor to the Massachusetts Department of Telecommunications and Energy (DTE) between August 2001 and July 2003, in Massachusetts DTE Docket 01-20, an investigation of Verizon's total element long run incremental cost (TELRIC) studies for recurring and nonrecurring unbundled network elements (UNEs). She assisted with all aspects of this comprehensive case in Massachusetts. Ms. Baldwin analyzed recurring and nonrecurring cost studies; ran cost models; reviewed parties' testimony, cross-examined witnesses, trained staff, met with the members of the Commission, assisted with substantial portions of the major orders issued by the DTE; and also assisted with the compliance phase of the proceeding.

Ms. Baldwin has also contributed to numerous comments and declarations submitted to the Federal Communications Commission on issues such as broadband; intercarrier compensation reform; the Comcast-NBCU merger, price cap regulation; universal service; carriers' petitions for forbearance; separations reform; special access services, relay services; numbering optimization, and the Internet Protocol transition.

Ms. Baldwin worked with Economics and Technology, Inc. for twelve years, most recently as a Senior Vice President. Among her numerous projects were the responsibility of advising the Vermont Public Service Board in matters relating to a comprehensive investigation of NYNEX's revenue requirement and proposed alternative regulation plan. She participated in all phases of the docket, encompassing review of testimony, issuance of discovery, cross-examination of witnesses, drafting memoranda and decisions, and reviewing compliance filings. Another year-long project managed by Ms. Baldwin was the in-depth analysis and evaluation of the cost proxy models submitted in the FCC's universal service proceeding. Also, on behalf of the staff of the Idaho Public Utilities Commission, Ms. Baldwin testified on the proper allocation of US West's costs between regulated and non-regulated services. On behalf of AT&T Communications of California, Inc. and MCI Telecommunications Corporation, Ms. Baldwin comprehensively analyzed the non-recurring cost studies submitted by California's incumbent local exchange carriers.

Ms. Baldwin has participated in more than twenty state and federal regulatory investigations of the impact of proposed transfers of control of wireline, wireless and cable companies. Ms. Baldwin sponsored declarations on behalf of the New Jersey Division of Rate Counsel on Comcast's acquisition of NBCU, the proposed AT&T-T-Mobile merger, and the

transfer of spectrum from Comcast and Cox to Verizon. Ms. Baldwin sponsored testimony on behalf of the Connecticut Office of Consumer Counsel on AT&T's transfer to Frontier, on behalf of the Communications Workers of America on Verizon's sale of its property to Frontier, and on behalf of New Hampshire Office of Consumer Advocate on Verizon's sale of its operations to FairPoint. Ms. Baldwin also sponsored testimony and declarations on behalf of the New Jersey Division of Rate Counsel on Verizon's acquisition of MCI, SBC's acquisition of AT&T, AT&T's acquisition of BellSouth, and Sprint's spin-off of its local operations. Ms. Baldwin also sponsored testimony on behalf of the Nevada Bureau of Consumer Protection on the proposed merger of Sprint and WorldCom, on behalf of the Office of Ratepayer Advocates ("ORA") and also on behalf of the Washington Office of Attorney General in their respective investigations of the proposed merger of Bell Atlantic Corporation and GTE Corporation; co-managed assistance to the Hawaii Division of Consumer Advocacy in the analysis of the proposed BA/GTE merger; sponsored testimony on behalf of the Ohio Consumers' Counsel and the Indiana Office of Utility Consumer Counselor on the SBC/Ameritech merger; co-sponsored testimony on behalf of the Connecticut Office of Consumer Counsel on the impact of SBC's acquisition of SNET on consumers; co-authored affidavits submitted to the FCC on behalf of consumer coalitions on the SBC/Ameritech and BA/GTE mergers; and co-managed a project to assist the ORA analyze the California Public Utilities Commission's investigation of the merger of Pacific Telesis Group and SBC Communications.

Ms. Baldwin has contributed to the development of state and federal policy on numbering matters. On behalf of the Ad Hoc Telecommunications Users Committee, Ms. Baldwin participated in the Numbering Resource Optimization Working Group (NRO-WG), and in that capacity, served as a co-chair of the Analysis Task Force of the NRO-WG. She has also provided technical assistance to consumer advocates in the District of Columbia, Illinois, Iowa, Massachusetts, and Pennsylvania on area code relief and numbering optimization measures. Ms. Baldwin also co-authored comments on behalf of the National Association of State Utility Consumer Advocates in the FCC's proceeding on numbering resource optimization.

During her first years at ETI, Ms. Baldwin was the Director of Publications and Tariff Research, and, in that capacity, she trained and supervised staff in the analysis of telecommunications rate structures, services, and regulation.

Ms. Baldwin served four years as the Director of the Telecommunications Division for the Massachusetts Department of Public Utilities (now the Department of Telecommunications & Cable), where she directed a staff of nine, and acted in a direct advisory capacity to the DPU Commissioners. (The Massachusetts DTC maintains a non-separated staff, which directly interacts with the Commission, rather than taking an advocacy role of its own in proceedings). Ms. Baldwin advised and drafted decisions for the Commission in numerous DPU proceedings including investigations of a comprehensive restructuring of New England Telephone Company's rates, an audit of NET's transactions with its NYNEX affiliates, collocation, ISDN, Caller ID, 900-type services, AT&T's request for a change in regulatory treatment, pay telephone and alternative operator services, increased accessibility to the network by disabled persons, conduit rates charged by NET to cable companies, and quality of service. Under her

supervision, staff analyzed all telecommunications matters relating to the regulation of the then \$1.7-billion telecommunications industry in Massachusetts, including the review of all telecommunications tariff filings; petitions; cost, revenue, and quality of service data; and certification applications. As a member of the Telecommunications Staff Committees of the New England Conference of Public Utility Commissioners (NECPUC) and the National Association of Regulatory Utility Commissioners (NARUC), she contributed to the development of telecommunications policy on state, regional, and national levels.

Ms. Baldwin has worked with local, state, and federal officials on energy, environmental, budget, welfare, and telecommunications issues. As a policy analyst for the New England Regional Commission (NERCOM), Massachusetts Department of Public Welfare (DPW), and Massachusetts Office of Energy Resources (MOER), she acquired extensive experience working with governors' offices, state legislatures, congressional offices, and industry and advocacy groups. As an energy analyst for NERCOM, Ms. Baldwin coordinated New England's first regional seminar on low-level radioactive waste, analyzed federal and state energy policies, and wrote several reports on regional energy issues. As a budget analyst for the DPW, she forecast expenditures, developed low-income policy, negotiated contracts, prepared and defended budget requests, and monitored expenditures of over \$100 million. While working with the MOER, Ms. Baldwin conducted a statewide survey of the solar industry and analyzed federal solar legislation.

Ms. Baldwin received Boston University's Dean's Fellowship. While attending the Kennedy School of Government, Ms. Baldwin served as a teaching assistant for a graduate course in microeconomics and as a research assistant for the school's Energy and Environmental Policy Center, and at Wellesley College was a Rhodes Scholar nominee. She has also studied in Ghent, Belgium.

Record of Prior Testimony

In the matter of the Application of the New Jersey Bell Telephone Company for Approval of its Plan for an Alternative Form of Regulation, New Jersey Board of Regulatory Commissioners Docket No. T092030358, on behalf of the New Jersey Cable Television Association, filed September 21, 1992, cross-examined October 2, 1992.

DPUC review and management audit of construction programs of Connecticut's telecommunications local exchange carriers, Connecticut Department of Public Utility Control Docket No. 91-10-06, on behalf of the Connecticut Office of the Consumer Counsel, filed October 30, 1992, cross-examined November 4, 1992.

Joint petition of New England Telephone and Telegraph Company and Department of Public Service seeking a second extension of the Vermont Telecommunications Agreement, Vermont Public Service Board 5614, Public Contract Advocate, filed December 15, 1992, cross-examined December 21, 1992.

Application of the Southern New England Telephone Company to amend its rates and rate structure, Connecticut Department of Public Utility Control Docket No. 92-09-19, on behalf of the Connecticut Office of Consumer Counsel, filed March 26, 1993 and May 19, 1993, cross-examined May 25, 1993.

In the matter of the Application of Cincinnati Bell Telephone Company for Approval of an Alternative

Form of Regulation and for a Threshold Increase in Rates, Public Utilities Commission of Ohio Case No. 93-432-TP-ALT, on behalf of Time Warner AxS, filed March 2, 1994.

Matters relating to IntraLATA Toll Competition and Access Rate Structure, Rhode Island Public Utilities Commission Docket 1995, on behalf of the Rhode Island Public Utilities Commission Staff, filed March 28, 1994 and June 9, 1994, cross-examined August 1, 1994.

In the Matter of the Application of The Ohio Bell Telephone Company for Approval of an Alternative Form of Regulation, Public Utilities Commission of Ohio Case No. 93-487-TP-ALT, on behalf of Time Warner AxS, filed May 5, 1994, cross-examined August 11, 1994.

In Re: Universal Service Proceeding: The Cost of Universal Service and Current Sources of Universal Service Support, Tennessee Public Service Commission Docket No. 95-02499, on behalf of Time Warner AxS of Tennessee, L.P., filed October 18, 1995 and October 25, 1995, cross-examined October 27, 1995.

In Re: Universal Service Proceeding: Alternative Universal Service Support Mechanisms, Tennessee Public Service Commission Docket No. 95-02499, on behalf of Time Warner AxS of Tennessee, L.P., filed October 30, 1995 and November 3, 1995, cross-examined November 7, 1995.

In the Matter of the Application of US West Communications, Inc. for Authority to Increase its Rates and Charge for Regulated Title 61 Services, Idaho Public Utilities Commission Case No. USW-S-96-5, on behalf of the Staff of the Idaho Public Utilities Commission, filed November 26, 1996 and February 25, 1997, cross-examined March 19, 1997.

A Petition by the Regulatory Operations Staff to Open an Investigation into the Procedures and Methodologies that Should Be Used to Develop Costs for Bundled or Unbundled Telephone Services or Service Elements in the State of Nevada, Nevada Public Service Commission Docket No. 96-9035, on behalf of AT&T Communications of Nevada, Inc., filed May 23, 1997, cross-examined June 6, 1997.

Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture; Investigation on the Commission's Own Motion into Open Access and Network Architecture Development of Dominant Carrier Networks, California Public Utilities Commission R.93-04-003 and I.93-04-002, co-authored a declaration on behalf of AT&T Communications of California, Inc., and MCI Telecommunications Corporation, filed on December 15, 1997 and on February 11, 1998.

Consolidated Petitions for Arbitration of Interconnection Agreements, Massachusetts Department of Telecommunications and Energy, DPU 96-73/74, 96-75, 96-80/81, 96-83, and 96-84, on behalf of AT&T Communications of New England, Inc. and MCI Telecommunications Corporation, filed February 3, 1998.

In the Matter of the Application of US West Communications, Inc. for Specific Forms of Price Regulation, Colorado Public Utilities Commission Docket No. 97-A-540T, on behalf of the Colorado Office of Consumer Counsel, filed on April 16, 1998, May 14, 1998 and May 27, 1998, cross-examined June 2, 1998.

Joint Application of SBC Communications and Southern New England Telecommunications Corporation for Approval of a Change of Control, Connecticut Department of Public Utility Control Docket No. 98-02-20, on behalf of the Connecticut Office of Consumer Counsel, filed May 7, 1998 and June 12, 1998, cross-examined June 15-16, 1998.

Fourth Annual Price Cap Filing of Bell Atlantic-Massachusetts, Massachusetts Department of Telecommunications and Energy Docket DTE 98-67, on behalf of MCI Telecommunications Corporation, filed September 11, 1998 and September 25, 1998, cross-examined October 22, 1998.

Applications of Ameritech Corp., Transferor, and SBC Communications, Inc., Transferee, For Consent to Transfer Control, Federal Communications Commission CC Docket No. 98-141, co-sponsored affidavit on behalf of Indiana Utility Consumer Counselor, Michigan Attorney General, Missouri Public Counsel, Ohio Consumers' Counsel, Texas Public Utility Counsel and Utility Reform Network, filed on October 13, 1998.

In the Matter of the Joint Application of SBC Communications Inc., SBC Delaware, Inc., Ameritech Corporation and Ameritech Ohio for Consent and Approval of a Change of Control, Public Utilities Commission of Ohio Case No.98-1082-TP-AMT, on behalf of Ohio Consumers' Counsel, filed on December 10, 1998, cross-examined on January 22, 1999.

GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, For Consent to Transfer Control, Federal Communications Commission CC Docket No. 98-184, co-sponsored an affidavit on behalf of a coalition of consumer advocates from Delaware, Hawaii, Maine, Maryland, Missouri, Ohio, Oregon, West Virginia, and Michigan, filed on December 18, 1998.

In the Matter of the Joint Application of GTE and Bell Atlantic to Transfer Control of GTE's California Utility Subsidiaries to Bell Atlantic, Which Will Occur Indirectly as a Result of GTE's Merger with Bell Atlantic, California Public Utilities Commission A. 98-12-005, on behalf of the California Office of Ratepayer Advocate, filed on June 7, 1999.

In the Matter of the Investigation on the Commission's Own Motion Into All Matters Relating to the Merger of Ameritech Corporation and SBC Communications Inc., Indiana Utility Regulatory Commission Cause No. 41255, on behalf of the Indiana Office of Utility Consumer Counselor, filed on June 22, 1999 and July 12, 1999, cross-examined July 20, 1999.

In re Application of Bell Atlantic Corporation and GTE Corporation for Approval of the GTE Corporation - Bell Atlantic Corporation Merger, Washington Utilities and Transportation Commission UT-981367, on behalf of the Washington Attorney General Public Counsel Section, filed on August 2, 1999.

Application of New York Telephone Company for Alternative Rate Regulation, Connecticut Department of Public Utility Control Docket No. 99-03-06, on behalf of the Connecticut Office of Consumer Counsel, filed October 22, 1999.

In re: Area Code 515 Relief Plan, Iowa Utilities Board Docket No. SPU-99-22, on behalf of Iowa Office of Consumer Advocate, filed November 8, 1999, and December 3, 1999, cross-examined December 14, 1999.

In re Application of MCI WorldCom, Inc. and Central Telephone Company - Nevada, d/b/a Sprint of Nevada, and other Sprint entities for Approval of Transfer of Control pursuant to NRS 704.329, Nevada Public Utilities Commission Application No. 99-12029, on behalf of the Nevada Office of the Attorney General, Bureau of Consumer Protection, filed April 20, 2000.

In re: Area Code 319 Relief Plan, Iowa Utilities Board Docket No. SPU-99-30, on behalf of Iowa Office of Consumer Advocate, filed June 26, 2000 and July 24, 2000.

In re: Sprint Communications Company, L.P. & Level 3 Communications, L.L.C., Iowa Utilities Board Docket Nos. SPU-02-11 & SPU-02-13, on behalf of Iowa Office of Consumer Advocate, filed October 14, 2002 and January 6, 2003, cross-examined February 5, 2003.

Illinois Bell Telephone Company filing to increase unbundled loop and nonrecurring rates (tariffs filed December 24, 2002), Illinois Commerce Commission Docket No. 02-0864, on behalf of Citizens Utility Board, filed May 6, 2003 and February 20, 2004.

Qwest Petition for Competitive Classification of Business Services, Washington Utilities and Transportation Commission Docket No. 030614, on behalf of Public Counsel, filed August 13, 2003 and August 29, 2003, cross-examined September 18, 2003.

In the Matter of the Application of CenturyTel of Northwest Arkansas, LLC for Approval of a General Change in Rates and Tariffs, Arkansas Public Service Commission Docket No. 03-041-U, on behalf of the Attorney General, filed October 9, 2003 and November 20, 2003.

In the Matter of the Board's Review of Unbundled Network Elements, Rates, Terms and Conditions of Bell Atlantic New Jersey, Inc., New Jersey Board of Public Utilities Docket No. TO00060356, on behalf of the New Jersey Division of the Ratepayer Advocate, filed January 23, 2004.

In the Matter of the Implementation of the Federal Communications Commission's Triennial Review Order, New Jersey Board of Public Utilities Docket No. TO03090705, on behalf of the New Jersey Division of the Ratepayer Advocate, filed February 2, 2004.

Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Local Exchange Carriers, Federal Communications Commission WC Docket No. 04-313, CC Docket No. 01-338, sponsored affidavit on behalf of the New Jersey Division of the Ratepayer Advocate, filed October 4, 2004.

Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Local Exchange Carriers, Federal Communications Commission WC Docket No. 04-313, CC Docket No. 01-338, sponsored affidavit on behalf of the Utah Committee of Consumer Services, filed October 4, 2004.

In the Matter of Verizon New Jersey, Inc. For a Revision of Tariff B.P.U.-N.J. – No. 2 Providing for a Revenue Neutral Rate Restructure Including a Restructure of Residence and Business Basic Exchange Service and Elimination of \$.65 Credit, New Jersey Board of Public Utilities Docket No. TT04060442, on behalf of the New Jersey Division of the Ratepayer Advocate, filed December 22, 2004 and January 18, 2005.

In the Matter of the Application of Verizon New Jersey, Inc. for Approval (I) of a New Plan for an Alternative Form of Regulation and (II) to Reclassify Multi-Line Rate Regulated Business Services as Competitive Services, and Compliance Filing, New Jersey Board of Public Utilities Docket No. TO01020095, on behalf of the New Jersey Division of the Ratepayer Advocate, filed January 10, 2005 and February 4, 2005.

Joint Petition of SBC Communications Inc. and AT&T Corp., Together with its Certificated Subsidiaries for Approval of Merger, New Jersey Board of Public Utilities Docket No. TM05020168, on behalf of the New Jersey Division of the Ratepayer Advocate, filed May 4, 2005 and June 1, 2005.

In the Matter of Verizon Communications Inc. and MCI, Inc., Applications for Approval of Transfer of Control, Federal Communications Commission WC Docket No. 05-75, co-sponsored affidavit on behalf of the New Jersey Division of the Ratepayer Advocate, filed on May 9, 2005.

In the Matter of the Application of Southwestern Bell Telephone, L.P., d/b/a SBC Arkansas to Set Rates for Unbundled Network Elements, Arkansas Public Service Commission Docket No. 04-109-U, on behalf of the Attorney General, filed May 27, 2005.

Joint Petition of Verizon Communications Inc. and MCI, Inc. for Approval of Merger, New Jersey Board of Public Utilities Docket No. TM05030189, on behalf of the New Jersey Division of the Ratepayer Advocate, filed July 8, 2005 and August 19, 2005.

In the Matter of Joint Petition of United Telephone Company of New Jersey, Inc. d/b/a Sprint and LTD Holding Company for Approval Pursuant to *N.J.S.A. 48:2-51* and *N.J.S.A. 48:3-10* of a change in

Ownership and Control, New Jersey Board of Public Utilities Docket No. TM05080739, on behalf of the New Jersey Division of the Ratepayer Advocate, filed November 29, 2005.

In the Matter of the Board's Review of the Classification of Verizon New Jersey's Directory Assistance Services ("DAS") as Competitive and Associated Service Quality, Docket No. TX06010057, In the Matter of the Filing by Verizon New Jersey Inc. for the Reclassification of Existing Rate Regulated Services – Directory Assistance Services as Competitive, New Jersey Board of Public Utilities, Docket No. TT97120889, on behalf of the New Jersey Division of the Ratepayer Advocate, filed May 12, 2006.

In the Matter of AT&T Inc. and BellSouth Corporation Applications for Approval of Transfer of Control, Federal Communications Commission WC Docket No. 06-74, sponsored declaration with Sarah M. Bosley on behalf of the New Jersey Division of the Ratepayer Advocate, filed June 5, 2006; sponsored declaration with Sarah M. Bosley and Timothy E. Howington on behalf of the New Jersey Division of Rate Counsel, October 3, 2006.

In the Matter of Jurisdictional Separations and Referral to the Federal-State Joint Board, CC Docket No. 80-286, sponsored affidavit on behalf of the National Association of State Utility Consumer Advocates and the New Jersey Division of Rate Counsel, filed August 22, 2006.

In the Matter of the Board Investigation Regarding the Reclassification of Competitive Local Exchange Carrier (CLEC) Services as Competitive, New Jersey Board of Public Utilities Docket No. TX06120841, on behalf of the New Jersey Division of Rate Counsel, filed January 7, 2007, January 30, 2007, and February 20, 2007.

Verizon New England Inc., Bell Atlantic Communications, Inc., NYNEX Long Distance Company, Verizon Select Services Inc. and FairPoint Communications, Inc. Joint Petition for Authority to Transfer Assets and Franchise to FairPoint Communications, Inc., New Hampshire Public Utilities Commission Docket No. DT-07-011, on behalf of the Office of Consumer Advocate, filed August 1, 2007, cross-examined November 1, 2007.

In the Matter of the Commission's Investigation into Verizon Maryland, Inc.'s Affiliate Relationships, Maryland Public Service Commission Case No. 9120, on behalf of the Office of People's Counsel, filed October 29, 2007 and November 19, 2007, cross-examined November 28, 2007.

In the Matter of the Board Investigation Regarding the Reclassification of Incumbent Local Exchange Carrier (ILEC) Services as Competitive, New Jersey Board of Public Utilities Docket No. TX07110873, on behalf of the New Jersey Division of Rate Counsel, filed December 14, 2007, January 10, 2008.

In the Matter of Verizon Washington, DC Inc.'s Price Cap Plan 2007 for the Provision of Local Telecommunications Services in the District of Columbia, Public Service Commission of the District of Columbia Formal Case No. 1057, on behalf of the District of Columbia Office of People's Counsel, filed December 20, 2007, January 31, 2008.

In re Possible Extension of Board Jurisdiction over Single Line Flat-Rated Residential and Business Rates for Local Exchange Carriers, Iowa Utilities Board Docket No. INU-08-1, on behalf of Iowa Office of Consumer Advocate, filed March 17, 2008, April 28, 2008, cross-examined May 22, 2008.

Petition of the Office of Consumer Counsel for Enforcement of Quality of Service Standards for the Southern New England Telephone Company d/b/a AT&T Connecticut, Connecticut Department of Public Utility Control Docket No. 08-07-15, on behalf of the Communications Workers of America, Local 1298, filed January 30, 2009, cross-examined February 25, 2009.

In the Matter of the Board's Investigation and Review of Local Exchange Carrier Intrastate Exchange Access Rates, New Jersey Board of Public Utilities Docket No. TX08090830, on behalf of the New

Jersey Division of Rate Counsel, filed February 13, 2009, April 20, 2009, and June 22, 2009, cross-examined October 20, 2009.

In the Matter of Appropriate Forms Of Regulating Telephone Companies, Maryland Public Service Commission, Case No. 9133, on behalf of the Communications Workers of America, filed June 1, 2009, October 16, 2009, October 30, 2009, cross-examined November 4, 2009.

Petition of the Office of Consumer Counsel for Enforcement of Quality of Service Standards for the Southern New England Telephone Company d/b/a AT&T Connecticut, Connecticut Department of Public Utility Control Docket No. 08-07-15PH02, on behalf of the Communications Workers of America, Local 1298, filed September 21, 2009.

In the Matter of the Application of Frontier Communications Corporation, New Communications Holdings, Inc. and Verizon Communications Inc. for Consent and Approval of a Change in Control, Public Utilities Commission of Ohio Case No. 09-454-TP-ACO, on behalf of the Communications Workers of America and International Brotherhood of Electrical Workers, Local 986, filed October 14, 2009.

Frontier Communications Corporation, Verizon Communications, Inc., Verizon North Inc., Verizon South Inc., New Communications of the Carolinas, Inc. Joint Application for the approval of a Reorganization, Illinois Commerce Commission Docket No. 09-0268, on behalf of the International Brotherhood of Electrical Workers, Locals 21, 51, and 702, filed October 20, 2009.

In re Verizon Service Quality in Western Massachusetts, Massachusetts Department of Telecommunications and Cable D.T.C. 09-1, on behalf of the Office of the Attorney General, filed November 9, 2009, February 24, 2010, cross-examined March 31, 2010, April 1, 2010, May 21, 2010.

Joint Application of Frontier Communications Corporation and Verizon West Virginia Inc. and certain affiliates for approval of the transfer of Verizon's local exchange and long distance business in West Virginia to companies to be owned and controlled by Frontier Communications Corporation, Public Service Commission of West Virginia Case No. 09-0871-T-PC, on behalf of the Communications Workers of America, AFL-CIO, filed November 16, 2009.

In the Matter of Qwest Communications Company and CenturyTel, Inc. for Approval of Control of Qwest Communications Company LLC, New Jersey Board of Public Utilities Docket No. TM10050343, on behalf of the New Jersey Division of Rate Counsel, filed September 23, 2010.

Petition of the North American Numbering Plan Administrator on behalf of the Pennsylvania Telecommunications Industry for Approval of Numbering Plan Area Relief Planning for the 814 NPA, Pennsylvania Public Utility Commission Docket No. P-2009-2112925, on behalf of the Pennsylvania Office of Consumer Advocate, filed May 23, 2011, cross-examined May 24, 2011.

In re Applications of AT&T, Inc. and Deutsche Telekom AG for Consent to the Transfer of Control of the Licenses and Authorizations Held by T-Mobile USA, Inc. and its Subsidiaries to AT&T Inc., WT Docket No. 11-65, File Nos. 0004669383, *et al.*, sponsored declarations on behalf of the new Jersey Division of Rate Counsel, May 31, 2011, and June 20, 2011.

In the Matter of Application of Cellco Partnership d/b/a Verizon Wireless and SpectrumCo LLC For Consent To Assign Licenses and Application of Cellco Partnership d/b/a Verizon Wireless and Cox TMI Wireless, LLC For Consent To Assign Licenses, WT Docket No. 12-4, sponsored declarations on behalf of the New Jersey Division of Rate Counsel, filed February 17, 2012, and March 26, 2012.

In the Matter of the Board's Investigation Regarding the Reclassification of Incumbent Local Exchange Carrier (ILEC) Services as Competitive – Phase II, New Jersey Board of Public Utilities Docket No.

TX11090570, on behalf of the New Jersey Division of Rate Counsel, filed February 24, 2012, April 27, 2012, and June 11, 2012, cross-examined July 17, 2012.

Petition of David K. Ebersole, Jr. and the Office of Consumer Advocate for a Declaratory Order that Verizon Pennsylvania Inc. Has Not Met Its Legal Obligation to the Greensburg Bona Fide Retail Request Group Pursuant to Its Chapter 30 Plan, Pennsylvania Public Utility Commission Docket No. P-2012-2323362, affidavit on behalf of the Pennsylvania Office of Consumer Advocate, September 6, 2012.

In the Matter of Commission Consideration Of Effective Competition Areas and the Classification of Basic Local Exchange Service, Colorado Public Utilities Commission Proceeding Number 13M-0422T, Pursuant to 4 CCR 723-2-2213, answer testimony on behalf of AARP, December 6, 2013, cross-examined January 7, 2014.

PURA Establishment of Rules for Electric Suppliers and EDCs Concerning Operations and Marketing in the Electric Retail Market, Connecticut Public Utilities Regulatory Authority Docket No. 13-07-18, testimony and supplemental testimony on behalf of the Connecticut Office of Consumer Counsel, March 10, 2014 and March 17, 2014, cross-examined March 27, 2014.

Joint Application of Frontier Communications Corporation and AT&T Inc. for Approval of a Change in Control, Connecticut Public Utilities Regulatory Authority Docket No. 14-01-46, testimony on behalf of the Connecticut Office of Consumer Counsel, May 23, 2014, cross-examined June 30, 2014.

The Utility Reform Network, Complainant vs. Pacific Bell Telephone Company D/B/A AT&T California (U1001C); AT&T Communications of California, Inc. (U5002C), Defendants, Case No. 13-12-005, Complaint of the Utility Reform Network Regarding Basic Service Rates of AT&T California (Public Utilities Code Section 1702; Commission Rule of Practice and Procedure 4.1(b)), December 6, 2013, initial and rebuttal testimony on behalf of the Utility Reform Network (TURN), August 22, 2014 and October 3, 2014.

Joint Petition of Verizon Pennsylvania LLC and Verizon North LLC for Competitive Classification of all Retail Services in Certain Geographic Areas, and for a Waiver of Regulation for Competitive Services, Pennsylvania PUC Docket Nos. P-2014-2446303 and P-2014-2446304, testimony on behalf of Communications Workers of America and the International Brotherhood of Electrical Workers, November 14, 2014.

Testimony before State Legislatures:

Testified on September 24, 1997, before the Massachusetts State Legislature Joint Committee on Government Regulations regarding House Bill 4937 (concerning area codes).

Testified on March 2, 2010, before the Maryland State Legislature Senate Finance Committee regarding Senate Bill 677 (concerning Telephone Landline Sale Bill).

Testified on March 11, 2010, before the Maryland State Legislature House Economic Matters Committee regarding House Bill 937 (concerning Telephone Landline Sale Bill).

Testified on June 25, 2013, on behalf of AARP, before the Ohio Select Committee on Telecommunications Regulatory Reform (regarding SB 162).

Testified on December 12, 2013, on behalf of AARP, before the Pennsylvania House Consumer Affairs Committee (regarding House Bill 1608).

Reports/Publications/Presentations

Expert reports in tax matters, reports and publications on telecommunications and energy policy in trade journals, and presentations at industry associations and conferences include the following:

Expert reports in tax matters:

Iowa Department of Inspections and Appeals, In the Matter of Cable One, Inc. v. Iowa Department of Revenue, DIA 10DORFC014, SBTR Nos. 899 and 903, Property Tax Assessment, Expert Report, January 21, 2011 (on behalf of the Iowa Department of Revenue), deposited February 9, 2011.

Level 3 Communications, LLC. v. Arizona Department of Revenue; Coshise County; Graham County; Greenlee County; La Paz County; Maricopa County; Mohave County; Pima Count, Pinal County and Yuma County, Superior Court of the State of Arizona in the Arizona Tax Court, No. TX-2007-000594, Expert Report, May 20, 2011 (on behalf of the Arizona Department of Revenue), deposited July 14, 2011; cross-examined August 24, 2012.

Bresnan Communications, LLC, Plaintiff, v. State of Montana Department of Revenue, Defendant, Cause No. DV-10-1312, July 5, 2011(on behalf of the Montana Department of Revenue), deposited July 29, 2011.

Reports and Publications:

“The Cable-Telco Duopoly’s Deployment of New Jersey’s Information Infrastructure: Establishing Accountability” (with Sarah M. Bosley and Timothy E. Howington). Prepared for the Public Advocate of New Jersey, January 19, 2007.

“Assessing SBC/Pacific’s Progress in Eliminating Barriers to Entry: The Local Market in California Is Not Yet ‘Fully and Irreversibly Open’” (with Patricia D. Kravtin, Dr. Lee L. Selwyn, and Douglas S. Williams). Prepared for the California Association of Competitive Telecommunications Companies, July 2000.

“Where Have All the Numbers Gone? (Second Edition): Rescuing the North American Numbering Plan from Mismanagement and Premature Exhaust” (with Dr. Lee L. Selwyn). Prepared for the Ad Hoc Telecommunications Users Committee, June 2000.

“Price Cap Plan for USWC: Establishing Appropriate Price and Service Quality Incentives for Utah” (with Patricia D. Kravtin and Scott C. Lundquist). Prepared for the Utah Division of Public Utilities, March 22, 2000.

“Telephone Numbering: Establishing a Policy for the District of Columbia to Promote Economic Development” (with Douglas S. Williams and Sarah C. Bosley). Prepared for the District of Columbia Office of People’s Counsel, February 2000 (submitted to Eric W. Price, Deputy Mayor, April 6, 2000).

“The Use of Cost Proxy Models to Make Implicit Support Explicit, Assessing the BCPM and the Hatfield Model 3.1” (with Dr. Lee L. Selwyn). Prepared for the National Cable Television Association, submitted

in FCC CC Docket No. 96-45, March 1997.

“The Use of Forward-Looking Economic Cost Proxy Models” (with Dr. Lee L. Selwyn). Prepared for the National Cable Television Association, submitted in FCC Docket No. CCB/CPB 97-2, February 1997.

“Continuing Evaluation of Cost Proxy Models for Sizing the Universal Service Fund, Analysis of the Similarities and Differences between the Hatfield Model and the BCM2” (with Dr. Lee L. Selwyn). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, October 1996.

“Converging on a Cost Proxy Model for Primary Line Basic Residential Service, A Blueprint for Designing a Competitively Neutral Universal Service Fund” (with Dr. Lee L. Selwyn). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, August 1996.

“The Phone Wars and How to Win Them” (with Helen E. Golding). *Planning*, July 1996 (Volume 62, Number 7).

“The BCM Debate, A Further Discussion” (with Dr. Lee L. Selwyn and Helen E. Golding). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, May 1996.

“The Cost of Universal Service, A Critical Assessment of the Benchmark Cost Model” (with Dr. Lee L. Selwyn). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, April 1996.

“Funding Universal Service: Maximizing Penetration and Efficiency in a Competitive Local Service Environment” (with Dr. Lee L. Selwyn). Prepared for Time Warner Communications, Inc., October 1995.

“A Balanced Telecommunications Infrastructure Plan for New York State” (with Dr. Lee L. Selwyn). Prepared for the New York User Parties, December 4, 1992.

“A Roadmap to the Information Age: Defining a Rational Telecommunications Plan for Connecticut” (with Dr. Lee L. Selwyn, Susan M. Gately, JoAnn S. Hanson, David N. Townsend, and Scott C. Lundquist). Prepared for the Connecticut Office of Consumer Counsel, October 30, 1992.

“ISDN Rate-Setting in Massachusetts.” *Business Communications Review*, June 1992 (Volume 22, No. 6).

“Analysis of Local Exchange Carrier April 1988 Bypass Data Submissions” (with William P. Montgomery and Dr. Lee L. Selwyn). Prepared for the National Association of State Utility Consumer Advocates, August 1988.

“Tariff Data is Critical to Network Management.” *Telecommunications Products and Technology*, May 1988 (Volume 6, No. 5).

“Strategic Planning for Corporate Telecommunications in the Post-Divestiture Era: A Five Year View” (with Dr. Lee L. Selwyn, William P. Montgomery, and David N. Townsend). Report to the International Communications Association, December 1986.

“Competitive Pricing Analysis of Interstate Private Line Services.” Prepared for the National Telecommunications Network, June 1986.

“Analysis of Diamond State Telephone Private Line Pricing Movements: 1980-1990.” Prepared for Network Strategies, Inc., April 1985.

“Analysis of New York Telephone Private Line Pricing Movements: 1980-1990.” Prepared for Network Strategies, Inc., February 1985.

“Auction Methods for the Strategic Petroleum Reserve” (With Steven Kelman and Richard Innes). Prepared for Harvard University Energy Security Program, July 1983.

“How Two New England Cities Got a \$100 Million Waste-to-Energy Project” (with Diane Schwartz). *Planning*, March 1983 (Volume 49, Number 3).

“Evaluation of Economic Development and Energy Program in Lawrence, Massachusetts.” (with Richard Innes). Prepared for U.S. Department of Energy, August, 1982.

“Energy Efficiency in New England’s Rental Housing.” New England Regional Commission, 1981.

“Low Level Radioactive Waste Management in New England.” New England Regional Commission, 1981.

“The Realtor's Guide to Residential Energy Efficiency.” Prepared for the U.S. Department of Energy and the National Association of Realtors, 1980.

Presentations:

“Telecommunications in Transition: Advocating for 50+ Consumers in the Brave New World,” Presentation at AARP’s State Advocacy and Strategy Integration conference on “State Regulatory and Legislative Landscapes,” Portland, Oregon, September 16, 2014.

“What the IP Transition Means for Consumers and a Ubiquitous, Affordable, Reliable National Communications System,” 2014 National Association of State Utility Consumer Advocates Mid-Year Meeting, Santa Fe, New Mexico, June 2, 2014.

“For Sale - The National Wireline Communications System,” 2014 National Association of State Utility Consumer Advocates Mid-Year Meeting, Santa Fe, New Mexico, June 3, 2014.

“FCC Review of Verizon’s Section 214 Application and Its Implications for the IP Transition,” NASUCA Annual Meeting, Orlando, Florida, November 19, 2013.

“What gets lost in the IP Transition?” NASUCA Annual Meeting, Orlando, Florida, November 18, 2013.

“Service Outage and Restoration,” NARUC Staff panel, NARUC 125th Annual Meeting, Orlando, Florida, November 16, 2013.

“You Don’t Know What You’ve Got Til It’s Gone – Utilities Consumer Protections,” Presentation at AARP’s State Advocacy and Strategy Integration conference on “Fighting for Consumers,” Minneapolis, Minnesota, September 19, 2013.

“Protecting Consumers’ Assets and Income,” Presentation at the National Association of Latino Elected and Appointed Officials Policy Institute on “The Changing Dynamics of the Latino 50+ Population,” Albuquerque, New Mexico, August 25, 2013.

“Federalism in the 21st Century,” Presentation at the Mid-Atlantic Conference of Regulatory Utilities Commissioners 18th Annual Education Conference, Hershey, Pennsylvania, June 24, 2013.

“Trials for the Transition from TDM to IP,” Presentation at the New England Conference of Public Utilities Commissioners 66th Annual Symposium, Groton, Connecticut, June 11, 2013.

“The 1996 Telecom Act Today: Universal, affordable, reliable access to telecommunications for all. Does the federal-state partnership still exist?” AARP Telecommunications Summit, Pew Center for Charitable Trusts, Washington, DC, July 18, 2012.

“Issues and Ramifications Arising From the FCC’s Connect America Fund Order Affecting High Cost Universal Service and Intercarrier Compensation,” 2012 National Association of State Utility Consumer Advocates Mid-Year Meeting, Charleston, South Carolina, June 24, 2012.

“FCC Lifeline/Link Up Reform Order – What will it mean for regulators, consumers, and companies?” Presentation at the Mid-America Regulatory Conference, Des Moines, Iowa, June 11, 2012.

“Improving the Separations Process: Consumer Impact,” panelist for Federal-State Joint Board on Separations on behalf of the National Association of State Utility Consumer Advocates and the New Jersey Division of Rate Counsel, September 24, 2010, CC Docket No. 80-286, Washington, DC.

“The Evolving Role of State Regulation in a Changing Industry,” Presentation at the New England Conference of Public Utilities Commissioners 63th Annual Symposium, Brewster, Massachusetts, May 17, 2010.

“Broadband: Where it is, where it ain’t, and where it oughta be,” June 29, 2009, National Association of State Utility Consumer Advocates Mid-Year Meeting, Boston, Massachusetts.

“Deregulation and Price Increases: The Hallmarks of a Competitive Market?” November 18, 2008; 2008 National Association of State Utility Consumer Advocates Annual Meeting, New Orleans, Louisiana.

“Forbearance: What is it? What’s wrong with it? How to fix it,” November 12, 2007; “Net Neutrality – Not Dead Yet!,” November 13, 2007; 2007 National Association of State Utility Consumer Advocates Annual Meeting, Anaheim, California.

“FCC’s Regulatory Stance – Consumer Advocates’ Role More Important Than Ever,” 2005 National Association of State Utility Consumer Advocates Winter Meeting, March 2, 2005, Washington, D.C.

“Impact of Federal Regulatory Developments on Consumers and Consumers’ Impact on Regulatory

Developments,” Presentation for the Washington Attorney General’s Office, Seattle, Washington, May 27, 2003.

“The Finances of Local Competition” Presentation at the New England Conference of Public Utilities Commissioners 54th Annual Symposium, Mystic, Connecticut, May 21, 2001.

“Facilities-Based Competition” Presentation at the New England Conference of Public Utilities Commissioners 52nd Annual Symposium, Bretton Woods, New Hampshire, May 24, 1999.

“Exploring Solutions for Number Exhaust on the State Level” and “A Forum for Clarification and Dialogue on Numbering Ideas,” ICM Conference on Number Resource Optimization, New Orleans, Louisiana, December 10-11, 1998.

“Telecommunications Mergers: Impact on Consumers,” AARP Legislative Council 1998 Roundtable Meeting, Washington, D.C., November 18, 1998.

“Consumer Perspectives on Incumbent Local Exchange Carrier Mergers,” National Association of Regulatory Utility Commissioners 110th Annual Convention, Orlando, Florida, November 11, 1998.

Federal Communications Commission En Banc Hearing on “Proposals to Revised the Methodology for Determining Universal Service Support,” CC Docket Nos. 96-45 and 97-160,” June 8, 1998, panelist.

“Universal Service: Real World Applications,” 1997 National Association of State Utility Consumer Advocates Mid-Year Meeting, Charleston, South Carolina, June 9, 1997.

“Modeling operating and support expenses” and “Modeling capital expenses,” panelist for Federal-State Joint Board on Universal Service Staff Workshops on Proxy Cost Models, January 14-15, 1997, CC Docket 96-45.

“Evaluating the BCM2: An Assessment of Its Strengths and Weaknesses,” presentation to the AT&T Cost Team (with Michael J. DeWinter), December 4, 1996.

“Interpreting the Telecommunications Act of 1996 Mandate for the Deployment of Advanced Telecommunications Services in a Fiscally Responsible and Fully Informed Manner” (with Helen E. Golding), *Proceedings of the Tenth NARUC Biennial Regulatory Information Conference*, Volume 3, September 11-13, 1996.

“Making Adjustments to the BCM2.” Presentation to the Staff of the Federal-State Joint Board on Universal Service, September 16, 1996.

“Converging on a Model: An Examination of Updated Benchmark Cost Models and their Use in Support of Universal Service Funding.” Presentation to the National Association of Regulatory Utility Commissioners Summer Committee Meetings, July 22, 1996.

“ETI's Corrections to and Sensitivity Analyses of the Benchmark Cost Model.” Presentation to the Staff of the Federal-State Joint Board on Universal Service,” May 30, 1996.

“Redefining Universal Service.” Presentation at the *Telecommunications Reports* conference on

“Redefining Universal Service for a Future Competitive Environment,” Washington, D.C., January 18, 1996.

“Funding Universal Service: Maximizing Penetration and Efficiency in a Competitive Local Service Environment,” (with Lee L. Selwyn, under the direction of Donald Shephard), a Time Warner Communications Policy White Paper, September 1995.

“Stranded Investment and the New Regulatory Bargain,” (with Lee L. Selwyn, under the direction of Donald Shephard), a Time Warner Communications Policy White Paper, September 1995.

“New Frontiers in Regulation.” Presentation to the New England Women Economists Association, December 12, 1995.

“Local Cable and Telco Markets.” Presentation at the New England Conference of Public Utilities Commissioners 46th Annual Symposium, Dixville Notch, New Hampshire, June 29, 1993.

“Relationship of Depreciation to State Infrastructure Modernization.” Presentation at the *Telecommunications Reports* conference on “Telecommunications Depreciation,” Washington, D.C., May 6, 1993.

“Crafting a Rational Path to the Information Age.” Presentation at the State of New Hampshire's conference on the “Twenty-First Century Telecommunications Infrastructure,” Durham, New Hampshire, April 1993.

“The Political Economics of ISDN,” presentation at the John F. Kennedy School of Government seminar on “Getting from Here to There: Building an Information Infrastructure in Massachusetts,” March 1993.

“The New Competitive Landscape: Collocation in Massachusetts.” Presentation at TeleStrategies Conference on Local Exchange Competition, Washington, D.C., November 1991.

“Telecommunications Policy Developments in Massachusetts.” Presentations to the Boston Area Telecommunications Association, October 1989; March 1990; November 1990; June 1992. Presentation to the New England Telecommunications Association, March 1990.

“How to Capitalize on the New Tariffs.” Presentation at Communications Managers Association conference, 1988.

Advisor to:

United States General Accounting Office Report to the Subcommittee on Antitrust, Business Rights and Competition, Committee on the Judiciary, U.S. Senate, *Characteristics and Competitiveness of the Internet Backbone Market*, GAO-02-16, October 2001.

**Public Exhibits
SMB-1 to SMB-45**

Redacted Confidential Exhibit SMB-1

A.14-04-013 / A.14-06-012
Response of Time Warner Cable

Data Request No. ORA-A.14-04-013.PHH001

To: Office of Ratepayer Advocates
Prepared By: Neil Dozier; Mark Fitzpatrick
Titles: Corporate Division Vice President, Management Reporting & Programming;
Corporate Senior Vice President, Chief Financial Officer, Residential Services
Employer: Time Warner Cable
Date of Request: August 27, 2014

Question 53:

Please provide Time Warner Cable's revenue in California for the years 2011, 2012 and 2013, and projections for 2014. Also provide annual revenues for these same periods for the following categories:

- a. Residential: video, high-speed internet, and Voice Services
- b. Business: video, high-speed internet, and Voice Services
- c. Enterprise Ethernet Services
- d. Wholesale IP Services
- e. Carrier Backhaul Services
- f. Advertising
- g. Other (Describe)

Response to Question 53:

TWC objects to this request on the grounds that it exceeds the established scope of the docket to the extent it is seeking information regarding any video/cable services, advertising services, or any other services outside of the scope of this proceeding. TWC further objects to this request on the grounds that the request is vague, ambiguous, unduly burdensome and overbroad.

Subject to the foregoing, TWC responds as follows:

See the spreadsheet attached as Exhibit 6, Bates # 003375. Please note that Exhibit 6 contains confidential information.

Redacted Confidential Exhibit SMB-2

Q-1:53. Please provide Comcast's revenue in California for the years 2011, 2012 and 2013, and projections for 2014. Also provide annual revenues for these same periods for the following categories:

- a. Residential: video, high-speed internet, and Voice Services**
- b. Business: video, high-speed internet, and Voice Services**
- c. Enterprise Ethernet Services**
- d. Wholesale IP Services**
- e. Carrier Backhaul Services**
- f. Advertising**
- g. Other (Describe)**

Objection:

Comcast objects to this request on the grounds that it exceeds the established scope of the docket to the extent it is seeking information regarding any video/cable services, advertising services, or any other services outside of the scope of this proceeding. Comcast further objects to this request on the grounds that the request is vague, ambiguous, unduly burdensome and overbroad.

Subject to the foregoing objections, Comcast responds as follows:

Response:

Attached hereto as Confidential Exhibit ORA/Comcast R:1-53 is Comcast Cable Communications' unaudited income statements for the company's systems with telephony operations in California, for years 2013, 2012 and 2011. This exhibit, which has been excerpted from Comcast's annual report on file with the Commission contains confidential and proprietary information and is subject to Public Utility Code 583. Note that these income statements include revenues that are not subject to regulation by the CPUC. Included in Exhibit ORA/Comcast R-1:53 is a 2014 revenue projection for those services subject to regulation by the CPUC. Additional revenue projections will be provided as a supplement to this response, if such projections are available.

Sponsor: Warren Fitting, Director, Government and Regulatory Affairs

Redacted Confidential Exhibit SMB-3

Q-1:60. California's market will represent what portion of the merged entity's total customer base post-merger?

Objection:

Comcast objects to this request on the grounds that it exceeds the established scope of the docket to the extent it is seeking information regarding any video/cable services, advertising services, or any other services outside of the scope of this proceeding. Finally, Comcast also objects on the grounds that the request seeks information about "anticipated" facts or circumstances which may arise in the future, and which would require the company to create a document not in existence.

Subject to the foregoing objections, Comcast responds as follows:

Response:

Comcast estimates that [BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL] of its pro forma broadband and voice subscribers would be in the state of California.

Sponsor: Michael Kelman, Vice President, Competitive and Business Analytics

Redacted Confidential Exhibit SMB-4

I. RESPONSES

Unless otherwise stated, Comcast's responses to DRs requesting specific figures provide data as of June 30, 2014.

Q-1:1. Please identify the total number of households passed where Comcast broadband service is available in California.

Objection:

Comcast objects to this request to the extent it seeks the production of information that is not in Comcast's possession, and is not normally generated or retained by the company. Further, the company also objects to this request on the grounds that the request is unduly burdensome and overbroad.

Subject to the foregoing objections, Comcast responds as follows:

Response:

See ORA Broadband Services Spreadsheet Propounded to Comcast, attached hereto as Confidential Exhibit ORA/Comcast R:1-1, at cell # B145099. Data provided in cell # B145099 of the Broadband Services Spreadsheet is as of August 28, 2014.

Sponsor: John Gutierrez, Director, Government and Regulatory Affairs

Q-1:2. Please identify the total number of households subscribed to Comcast broadband services in California.

Objection:

Comcast objects to this request to the extent it seeks the production of information that is not in Comcast's possession, and is not normally generated or retained by the company. Further, the company also objects to this request on the grounds that the request is unduly burdensome and overbroad.

Subject to the foregoing objections, Comcast responds as follows:

Response:

See ORA Broadband Services Spreadsheet Propounded to Comcast, attached hereto as Confidential Exhibit ORA/Comcast R:1-1, at cell # C145099. Data provided in cell # C145099 of the Broadband Services Spreadsheet is as of August 28, 2014.

Sponsor: John Gutierrez, Director, Government and Regulatory Affairs

Q-1:29. Please identify the total number of households passed where Comcast voice service is available in California.

Response:

There are [BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL] households passed where Comcast's residential voice services are available.

Sponsor: Patti Loyack, Vice President, Broadband Voice

Q-1:30. Please identify the total number of households subscribed to Comcast voice services in California.

Response:

There are [BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL] households subscribed to Comcast's residential voice services in California.

Sponsor: Patti Loyack, Vice President, Broadband Voice

Exhibit SMB-5

A.14-04-013 / A.14-06-012
Response of Time Warner Cable

Data Request No. ORA-A.14-04-013.PHH001

To: Office of Ratepayer Advocates
Prepared By: Indrajit Ponnambalam
Title: Group Vice President, Revenue and Marketing, Finance
Employer: Time Warner Cable
Date of Request: August 27, 2014

Question 1:

Please identify the total number of households passed where Time Warner Cable broadband service is available in California.

Response to Question 1:

There are 5,489,665 households passed where TWC broadband service is available in California.

A.14-04-013 / A.14-06-012
Response of Time Warner Cable

Data Request No. ORA-A.14-04-013.PHH001

To: Office of Ratepayer Advocates
Prepared By: Indrajit Ponnambalam
Title: Group Vice President, Revenue and Marketing, Finance
Employer: Time Warner Cable
Date of Request: August 27, 2014

Question 2:

Please identify the total number of households subscribed to Time Warner Cable broadband services in California.

Response to Question 2:

There are 2,133,609 households subscribed to TWC broadband services in California.

A.14-04-013 / A.14-06-012
Response of Time Warner Cable

Data Request No. ORA-A.14-04-013.PHH001

To: Office of Ratepayer Advocates
Prepared By: Jeff Lindsay
Title: Group Vice President & GM, Digital Phone
Employer: Time Warner Cable
Date of Request: August 27, 2014

Question 29:

Please identify the total number of households passed where Time Warner Cable voice service is available in California.

Response to Question 29:

There are 5,546,364 households where TWC voice service is available in California.

A.14-04-013 / A.14-06-012
Response of Time Warner Cable

Data Request No. ORA-A.14-04-013.PHH001

To: Office of Ratepayer Advocates
Prepared By: Jeff Lindsay
Title: Group Vice President & GM, Digital Phone
Employer: Time Warner Cable
Date of Request: August 27, 2014

Question 30:

Please identify the total number of households subscribed to Time Warner Cable voice services in California.

Response to Question 30:

There are 783,121 households subscribed to TWC voice services in California.

Exhibit SMB-6

Q-4:17. Please explain why the total number of households passed where Comcast voice service is available (Comcast's response to Question 29 of Data Request No. ORA-A.14-04-013.PHH-001) in California is different from the total number of households passed where Comcast broadband service is available (Comcast's response to Question 1 of Data Request No. ORA-A.14-04-013.PHH-001) in California.

Objection:

Comcast objects to this request to the extent it seeks the production of information that is not in Comcast's possession, and is not normally generated or retained by the company. Further, the company also objects to this request on the grounds that the request is unduly burdensome and overbroad.

Subject to the foregoing objections, Comcast responds as follows:

Response:

The total number of households passed where Comcast's voice service is available, as stated in Comcast's Response to ORA Q-1:29 is different from the total number of households passed by Comcast's broadband service, as provided in Comcast's Response to ORA Q-1:1, for four primary reasons. First, the data provided in Comcast's Response to ORA Q-1:29 is as of June 30, 2014. The data provided in Comcast's Response to ORA Q-1:1 is as of August 28, 2014. Second, the data provided in Comcast's Response to ORA Q-1:1 includes commercial locations, and only residential data was provided in Comcast's Response to ORA Q-1:29. Third, Comcast is precluded from offering its voice service in the service territories of certain small California ILECs (e.g., Calaveras Telephone and Kerman Telephone), where local wireline competition is prohibited. Accordingly, households passed by Comcast facilities in those areas are not included in Comcast's Response to ORA Q-1:29. Fourth, there is a small part of Comcast's footprint located in Mendocino County that was recently upgraded to have broadband capability, which is required to provide voice service, but is not yet voice-capable.

Sponsor: John Gutierrez, Director, Government and Regulatory Affairs

Exhibit SMB-7